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The care of the human mind is the most noble branch of medicine.—GROTIUS.

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AMERICAN
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THE RELATION OF GENERAL PARESIS AND SYPHILITIC INSANITY.*

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My topic has been suggested by the recent effort, with which all are familiar, to show that brain disease and consequent insanity, due to what the newspapers, with a rare but misleading delicacy, have denominated "a form of blood poisoning" (syphilis) are not of the nature of general paresis, or in other words that general paresis is never of syphilitic origin. My object this evening is to show that such a view is not warranted by a careful clinical study of general paresis either in its symptoms or pathology.

General paresis may be defined as a progressive disease of the central nervous system, characterized by defective articulation of words, fibrillar twitchings of the tongue or facial muscles, muscular inco-ordination and lessened muscular control, disorders of sensation, emotional disturbances, hallucinations of sight, hearing and touch, frequently grandiose, rarely depressive, delusions, sometimes only a sense of well-being terminating in progressive dementia, convulsive seizures and death. Its duration is variable. In many instances it runs a rapid course and terminates fatally in a few months; in other cases

*Read before the Detroit Medical and Library Association, February 15th, 1886.

it extends over a period of years. A patient under my care to-day first developed paretic symptoms in 1872 and is still in the second stage of the disease. In an analysis of seventy-two cases of paresis at the Eastern Michigan Asylum, the average duration of all that terminated fatally was three years and two months. It develops as a rule between the ages of 30 and 50 years, the period of greatest mental and physical activity in the life of every individual. It is more apt to develop among persons exposed to the wear and tear, mental worry, excitement, excesses and vices of the city than among those living in the country. It is especially a disease of soldiers and sailors. It is very common among men and rarely develops except among the most dissolute and degraded of the other sex. Highly civilized and highly neurotic races are much more apt to suffer from it than those who are less active in the work of the world. In the Eastern Michigan Asylum 46 per cent of cases of general paresis were of American birth, from presumably American parentage; 28 per cent were of English birth (including Canadians), and 7 per cent each were of Irish and German birth. Prior to the emancipation of the colored race, cases of general paresis among them were unknown. After the war when the colored people crowded into cities, took up new conditions of living and began the struggle for existence in competition with a more highly cultured race, the disease developed and is rapidly increasing.

It is frequent in the older States of the Union, especially those containing large cities or a population largely engaged in in-door manufactures and is comparatively rare in the purely agricultural States or Territories. In Ireland it is said never to develop among the Celtic Irish but always among the Saxon Irish, and the same is also asserted of the Highlanders

in Scotland. The rule can not be considered invariable. An unmistakable Celt was under treatment for paresis at the Eastern Michigan Asylum, during the past year. The disease, however, is comparatively rare among the Irish in Ireland, but not so among the Irish in England or America. Antecedent mental activity seems to be a predisposing cause in every case. A list of cases now before me contains the names of men who were skilled workmen, successful merchants, commercial travelers, gamblers, accountants, railway employés, printers, etc. The exciting causes in relative frequency and potency are intemperance, syphilis, business reverses, sexual excesses, want and privation, over-work, over-worry, traumatism, etc. Heredity seems an important factor in the development of the disease. At the Eastern Michigan Asylum four per cent of paretics have an intemperate heredity, twenty-three per cent have insane relatives, and eleven per cent neurotic relatives. Among insane relatives sixteen per cent were upon the paternal side and seven per cent upon the maternal. In two instances the hereditary tendency was traced back to a father who also suffered from general paresis. Married men are more liable to suffer from the disease than single men, and in the latter a syphilitic causation is more common.

The train of symptoms in a typical case of general paresis is as follows: After a period of depression, usually of a hypochondriacal character, lasting a variable length of time—sometimes several months—there is noticed a change in the facial expression of the patient. The fine lines of the countenance are lost and the face seems heavy and sodden. Coincident with this symptom are slight disorders of speech. The consonants, especially the labials, are slurred a little in their utterance or pronounced with some effort. The

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movements of the lips are tremulous and it frequently seems as if the patient were about to cry. There are also fibrillar tremblings of the tongue and facial muscles. The handwriting becomes irregular, careless, hurried, often tremulous, and words or letters are frequently omitted. The gait is uncertain and the patient is clumsy in his movements. It is difficult for him to climb a fence and his toe frequently catches when he attempts to ascend stairs. It is difficult for him to turn abruptly when walking. In the advanced stages of the disease the gait is peculiar by reason of the effort which the patient makes to preserve his equilibrium when walking by bracing his legs as far from the centre of gravity as possible. The staggering of such patients frequently suggests intemperate habits.

Simultaneously with the first development of motor disorders a marked change is noticed in the mental state. The patient becomes restless, loquacious, extravagant and unnatural in conduct. He forms impracticable schemes and flies rapidly from one project to another without regard to consistency or sound judgment. As a rule these projects are from the first extravagant and unreasonable. He plans to buy extensive estates, to manufacture articles upon a large scale or to build overgrown and useless structures. The plans may occasionally display merely a lack of good business judgment and a failure to take into account the possibilities of reverses, failure of finding a market or an overstock. In the rapid flow of ideas which accompanies this condition all semblance of reason is soon lost and the wildest schemes are projected. One paretic planned to surround the asylum farm with a marble fence, every post of which should be an expensive Italian marble statue. He also projected building a

fleet of steamers to reach from New York to Liverpool and to serve as a floating bridge—thus obviating the necessity of a sea voyage to Europe. Another planned to build a hardware store 2,000 miles long to meet the business necessities of a little town of 500 inhabitants. Another rented all the stores in Detroit—or thought he did—to store the diamonds which were constantly coming to him by railroad in solid trains of 35 cars each—each car containing 20 tons of valuable diamonds. After a time these extravagant schemes may give place to a sense of extreme strength, supernatural power or great inportance. I know one poor fellow who spent his time setting out worlds like cabbage or tomato plants and painting the skies. I was once told by a patient that his wealth was so great he could not begin to use up his income even if he shoveled his coupons into the fire from morning until night with a large scoop shovel. Another boasted of a horse one and one-half miles high which could jump six miles and perform correspondingly remarkable feats of speed.

In some cases instead of active extravagant ideas there is simply a sense of well-being. The patient is perfectly satisfied with the life he leads and is simply indolent and good-natured. The duration of the disease in such persons is comparatively protracted, because the patient does nothing to exhaust his strength and leads a life of lazy, good-nature until the end comes. In a small proportion of cases the disease assumes a hypochondriacal form and the patient is distressed by fancies that his throat is gone, that his head is eaten out, that his abdomen is perforated or that his whole body is dead. The disease then usually runs a very rapid course and death is generally from exhaustion. In the melancholic form, which may be termed paresis in the minor key, there is usually an extravagance in the depres-

sion. One patient in this condition spent hours reading his Bible on his bended knees and took great satisfaction in contemplating the huge sloughs which were thus caused upon both his knees.

The later stages of the disease are of varying duration. Frequently when the period of excitement or elation is over, quiet dementia supervenes, which lasts months or even years. In many instances the extravagant delusion persists in the mind, but does not dominate the conduct. The patient derives much satisfaction from contemplating his wealth, grandeur, personal attractions, or power, but does nothing in character with the morbid impressions which he entertains. Generally, however, with dementia there is a growing irritability and a tendency to noisy periods of automatic excitement. It is frequently impossible to ascertain the exciting cause of these severe periods of mental disturbance. They are probably due to organic irritations somewhere in the system, creating sensations which the patient is unable to describe or explain, by reason of extreme mental impairment. Prior to this stage of the disease, or coincident with it, convulsive seizures are generally developed. These have all the characteristics of true epilepsy, and are frequently termed epileptiform. The diagnostic mark, so far as I have been able to determine, is the rapid rise in temperature which accompanies them in marked contrast with the seizures of true epilepsy. From the time that convulsive seizures are developed the course of the disease is constantly downward. The habits of the patient become degraded; he loses his self-respect and sense of propriety; is frequently untidy in habits, and often addicted to many degraded practices. From this time until its termination the disease offers very little interest. Convulsive seizures

recur, the mind is more and more impaired, the patient becomes paralyzed, helpless, bed-ridden, and finally dies in convulsions or from exhaustion. General paresis has not proven amenable to treatment. In some instances remissions occur, sometimes extending over a period of several years, but the number of cures is very small. Some persons deny that any patient was ever cured when suffering from true paresis, and the declaration is made that such presumed cures are only possible when an error has been made in diagnosis. This view is too discouraging. I have known cases where an arrest of symptoms followed the occurrence of extensive sloughs. In one instance the patient seemed comparatively well for a year; in another he has been well, able to live at home and to maintain himself by his labor during the past five years. Dr. Savage, of the Bethlem Hospital, has reported a case where a general paretic in the second stage of his disease was apparently cured by the development of a huge carbuncle. Dr. Peters, of Gheel, has reported two cases of apparent restoration after extensive and almost fatal carbuncles on the back of the neck. Dr. Godding told me of the cure of a patient, who was apparently in the third stage of general paresis, by an attack of confluent small-pox. It is probable that in all these cases the effect of extensive interstitial death of tissue is derivative, and transfers the morbid process from the brain.

It is doubtful whether in a single one of these so-called cures there is a complete restoration of the mental function. The patient at any rate is never able again to assume former cares and responsibilities. In the cases which have fallen under my observation, where remissions or apparent recoveries have seemed to occur, there has been apparent a degree of dementia, not well marked, but sufficient to indicate a decided change in the mental characteristics of the individual.

Medical treatment alone seems powerless to arrest the disease in its confirmed stages. The seat of the affection is undoubtedly in the grey matter of the cerebrum, more especially in the motor areas of the frontal and parietal convolutions. The appearances found *post mortem* are, thickening of the pia mater, adhesions of the membranes to the convolutions, increased vascularity of the cortex, increased density of the grey matter, wasting and degeneration of the brain cells, hyperplasia of the connective tissue, tortuosities of the vessels, in short, evidences of degenerative brain and nerve changes.

No subject has been more carefully studied than these pathological changes. There has been no difficulty in demonstrating deviations from the normal brain structure and plenty of diseased processes in the brains of paretics. Unfortunately however it is impossible to say that any of these brain changes can be considered pathognomonic of the disease, because similar changes are found in other forms of chronic brain disease. They seem to be the result of hyperæmias, increased blood circulation, over-action and over-excitation of motor areas; and are degenerations of the cell elements and the *débris* of exhausted brain tissue. Dr. Clouston speaks of general paresis as a premature senility. This however does not explain the uniform course of the disease and the motor affections which invariably accompany it. In senility there may be mild excitement, loss of mental power, tremulous muscular motions, and final loss of muscular control; but the manifestations differ in kind and in intensity from those of general paresis. In my opinion the disease is due to some cause which at first acts as an irritant upon the grey matter of the frontal and parietal convolutions, producing excitement and after-

wards exhaustion and decay. The difficulty is undoubtedly central and is first developed in the intimate structure of the nerve and brain cells. The motor symptoms are at first due to irritation of the motor areas, and afterwards to the pronounced disease which follows such irritation. The homogeneous character of the mental symptoms, and at the same time their great variety of manifestation, the analogous character of the motor symptoms, and their extensive range of manifestation, all point to pathological changes occurring in one portion or another of a large area of the brain cortex.

The doctrine of cerebral localization has given an excellent clue to the portion of the brain involved in this class of cases, and one which will undoubtedly in the future be carefully elaborated. At present it is impossible to accurately predict definite localized brain lesions from definite disorders of motion or sensation, because many factors in cerebral localization are not yet understood in all their modifying relations. There is every reason to expect, however, that patient, painstaking observation will eventually give a full and satisfactory knowledge of the relations between the motor and sensory symptoms and the localized brain lesion. The lesions of the spinal cord producing ataxia are undoubtedly secondary to the brain lesions. If we only knew the intimate molecular change in the brain cell which produces mania or melancholia, we could undoubtedly explain the ambitious delirium of the paretic, and the rapid genesis of thought which marks the first stage of paresis. Here is undoubtedly the starting-point, and until we are able to demonstrate the cause of the diseased action of the brain cells, it will probably be difficult to point to the initial lesion. The fibrillar contractions point to a local excitation of a limited area of the cerebral cortex. Epileptiform

seizures are undoubtedly due to degeneration of the nerve structure, and the increasing dementia following is readily explained by the same.

I turn now to the consideration of Syphilitic Insanity.

Why does syphilis invade the brain tissues and nerve structures in preference to other portions of the body? Simply because the victims of syphilitic brain disease have weakened or defective brains and these tissues offer the least resistance to the morbific influence. Nerve and brain syphilis, like general paresis, occur chiefly among persons who have inherited or acquired a neurotic or neuropathic organization. It is consequently not strange that the brain should be more liable to attack than the spinal cord, nor that the manifestations of cerebral syphilis should be varied in proportion to the different portions of the brain tissue acted upon by the poison and involved in the diseased process. In no other form of brain disease in fact can there be found so great a variety of symptoms. I shall consequently only be able to give briefly the more common forms of syphilitic insanity which have come under my observation and to present illustrative cases.

1.—Simple Psychoses,—like mania, melancholia or dementia, may develop from the direct, toxic influence of the disease upon the brain. Here syphilis plays the part of any other exciting cause, like over-fatigue, fright, sun-stroke, etc., which produces a profound impression upon the nervous system, and the mental manifestations differ in no respect from the psychoses due to more common causes. The treatment required is the same as that of any other form of simple mental disturbance with the addition of anti-syphilitic remedies. The results of treatment are usually good. If, however, the malady thus excited is developed in a

person of unstable mental organization, the liability to a relapse or to an imperfect recovery is in direct proportion to the degree of inherited vice of the nervous constitution. In other words the complication of syphilis in these cases does not modify the prognosis in any important respect.

2.—Gross Brain Lesions.—In the second form of syphilitic insanity gross brain lesions are present in the form of syphilomata or gummy tumors. These act by making compression upon brain-tissue, exciting inflammatory processes which interfere with the nutrition of brain cells and thus become centres of irritation and of brain softening. The symptoms are night headache persisting for weeks without intermission, sleeplessness, derangements of digestion, epileptiform seizures, often unilateral spasms, muscular inco-ordination, and unsteadiness of gait but no hemiplegia or actual paralysis. The mental symptoms are irritability of temper, emotional disturbance, impairment of memory, great mental confusion, delusions of fear and apprehension and frequently hallucinations of vision.

Patients of this class receive decided benefit frequently from the iodide of potassium in large doses—more benefit in fact than from the various mercurials. The following case illustrates this form of disease:

G. W. J., age 37, an artisan, was admitted to the Eastern Michigan Asylum in September, 1879. There was a definite history of syphilitic infection and a previous attack of syphilitic dementia from which he had recovered under the thorough use of iodide of potassium. There was a history of excess in the use of alcoholics and tobacco. He had also been a very hard-working man and had done his work under many unhygienic conditions. In addition, he had always been unfortunate and had suffered much mental worry by reason of business failure and family afflictions. Previous to his admission he had failed in memory

and had developed distinct hallucinations of vision and of hearing. He believed himself to reside in a haunted house and was violent towards his wife because he had heard her talking to him at night—she being at the time absent from home. Upon admission he seemed much confused and hesitated in speaking. He comprehended what was said to him with great difficulty and spoke slowly and with manifest effort. Under appropriate treatment there seemed marked improvement in many of his symptoms due probably to better state of bodily health. In the course of a month, however, he began to complain of numbness and loss of power in his left arm and hand, and there was greater mental hebetude and increased difficulty in conversing. Within another month he had a mild convulsive seizure and could not co-ordinate muscular movements for a time sufficient to feed himself. Soon aphasia developed and he became much annoyed because of his inability to express his meaning. In writing he misspelt his words, dropped letters from words, and words from sentences, and finally did not complete his sentences. His gait became very unsteady, and he walked with his legs spread wide apart and his arms widely outstretched, so as to balance himself. He had delusions respecting certain bodily organs and hallucinations of vision. He spoke of seeing smoke and attempted to strike it with his hand. Convulsive seizures of a severer type soon developed in which his head was drawn forcibly downward and to the left. The facial muscles upon the left side also contracted spasmodically. He finally sank under repeated convulsive seizures and died of exhaustion about four months after his admission. The post-mortem revealed a thick and toughened dura mater and an opalescent arachnoid. The pia mater was adherent to the convolutions over the entire brain and could not be separated without tearing the grey matter. The grey matter was thin and the brain atrophied. There was a gummy tumor in the tempero-sphenoidal lobe and a focus of softening in the motor area. The exact location and relations of the tumor were not determined.

3. Disease of Arteries of Brain from Syphilitic Deposits.—This may occur in any artery of the brain and especially in those of the circle of Willis, the Sylvian, the carotids and the artery of the corpus callosum. The syphilitic deposit takes place between the endothelium and the elastic fibres of the vessel, and

finally develops into connective tissue and thus blocks up the vessel. If this process goes on in the basal circulation the arteries become easily plugged up and, there being no anastomosis, the different forms of softening are produced, and finally a hemiplegia which is generally of an incurable character. If the diseased process occurs in the cortical circulation the plugging of arteries is not of such vital importance, because the circulation is more apt to be re-established by anastomosis. Hence in the latter form the paralyses are transitory. The mental symptoms of this form of disease are more variable. In one case under my care when there had been an attack of hemiplegia and marked inco-ordination, which symptoms had improved, there was a state of mental elation and confusion which resembled closely the first stage of intoxication. The patient was restless and loquacious and had impulses to wander about. In other instances there is present active excitement of a purposeless character. In the great majority of cases the predominant symptoms are those of dementia. These are irritability, mental confusion, purposeless wandering, lack of propriety and often extreme degradation of habits. The delusions are not of an ambitious character nor are there large or complicated ideas of any kind. It is evident at a glance that the brain is crippled and its action impaired. The paralytic symptoms are more pronounced than in the last mentioned form of disease and the palsies are generally persistent. The symptoms of muscular inco-ordination are not so marked. There are generally attacks of *petit mal* and sometimes of chorea. The following cases will give an excellent conception of the condition of these patients.

R. J. F., a male, age 49. Was admitted to the Asylum in 1880. A sister had been insane. He was of a sanguine temperament and

mild disposition. He had suffered from syphilis several years before. He was a railroad employé and had led a laborious life. He had also been guilty of excesses in drink. Two years previous to admission he had an attack of left hemiplegia and had not been able to do any regular work since. He had been irritable, passionate, impulsive and subject to periods of frenzy. He had suffered from persistent headaches and had been wakeful in consequence at night, and had received a large amount of active treatment, including a seton in the neck and a blister to the back of the head. His habits had been untidy, and his conversation and actions at home had rendered it unsafe for him to remain there. Upon admission he was found in feeble bodily health. He was excessively restless and had many times a day mild convulsive seizures of the nature of *petit mal* with momentary loss of consciousness. During these, his face flushed, his eyes filled with tears and his features became distorted. The fine lines of expression were absent from his countenance, and the left side of his face was less mobile than the right. His pulse was 100, irregular and feeble; his pupils were contracted; the hearing in his left ear imperfect. His skin was harsh, his tongue coated, and his bowels obstinately constipated, his left fingers were contracted and distorted, his gait clumsy, his speech thick. There was also difficulty in swallowing. His mind was feeble and he seemed hypochondriacal and apprehensive about his health. He had syphilitic sores upon his body, tender spots upon his scalp and a persistent headache. Under the use of the bichloride of mercury solution his condition improved. The headache ceased, sleep returned and the attacks of *petit mal* became comparatively infrequent and generally occurred after excitement or fatigue.

In the following case the symptoms were more active:

J. D. F., male, age 27. Had an intemperate and irresponsible father. The patient had been energetic and competent in business, but was dissipated, licentious and reckless. Eight months before his admission he contracted syphilis and received appropriate treatment, but was not permanently benefited because he presisted in his immoralities. One month before coming to the asylum he had been placed in a general hospital for treatment in consequence of an attack of syphilitic chorea. While there he had several attacks of excitement and had given much trouble by a persistent desire to go away. Upon admission his general health seemed

much reduced. His pupils were widely dilated. He suffered from a persistent morning headache. His body was covered with copper-colored cicatrices. Under treatment his excitement soon subsided and he seemed doing extremely well, but soon began to suffer excruciating pains in the head which did not yield to any remedies, anti-syphilitic or otherwise. In the course of six weeks he had an attack of left hemiplegia, accompanied by somnolence, mental confusion, loss of ability to converse and loss of memory. The paralysis of the arm and leg soon improved but the patient never regained full control of either member. During the next month he suffered considerable annoyance from transitory paralyses. On one occasion he could neither chew, swallow nor speak. Upon his discharge at the end of seven months his mental condition seemed normal, but some loss of motion of hand and leg was still apparent. He was treated with the proto-iodide of mercury. This remedy seemed better borne and was much more effectual than iodide of potassium.

4. The fourth form has been denominated the *Congestive Form of Cerebral Syphilis.* Here post mortem changes are observed in the psycho-motor centres of the anterior and parietal lobes which are in no respect different from the pathological appearances of general paresis. Certain differences, however, can generally be detected clinically. The delusions of grandeur are not as extravagant or persistent, and delusions of fear and apprehension are sometimes present. The gait is tottering, the pupils unequal and the speech embarrassed. The latter seems especially embarrassed in word-making. The intellect and memory soon suffer and the patient dies a slow, lingering death, generally from exhaustion. Convulsive seizures are present in the last stage of the disease. Some French writers have denominated this form pseudo-general paresis. The following is an illustrative case:

E. B., aged 38, single, a commercial traveler, possessed an exceedingly nervous heredity. He used alcoholics freely and

smoked excessively. He contracted syphilis several years before, and began to be paralyzed in his limbs about a year prior to admission. He also had syphilitic iritis, followed by double vision, for which last symptom he went to the Hot Springs, Arkansas, and remained about three months, with some benefit. It was noticed then that the paralysis which he complained of in his legs was more a lack of co-ordination than actual loss of muscular control. While under treatment at the Hot Springs, he formed extravagant business schemes and wrote constantly for money with which to prosecute them. Upon his return he was placed upon a great variety of anti-syphilitic remedies, but received no special benefit from them. He consulted Dr. Hammond of New York, who diagnosticated his disease to be locomotor ataxia. He suffered much discomfort from fulminant pains in the calves of his legs and required the aid of a cane in walking. His handwriting also became noticeably affected and he dropped letters and words. He became excited and had large business operations on hand. He desired to speculate in whisky, to open a large hotel, and began to appropriate the property which belonged to other people. He was violent and destructive if opposed. He traveled about the country almost constantly, and had frequent altercations with persons with whom he came in contact Upon admission, his conversation was drawling and his enunciation of labials and consonants very imperfect. He rose from his seat with an effort, but walked vigorously and with a peculiar balancing of the arms, as if on the verge of intoxication. It was difficult for him to turn about suddenly. He was restless and sleepless at night. His personal habits were degraded, and he gave much annoyance to his associates by urinating in the corners of their rooms. Under treatment the extravagance of his symptoms subsided, but there was no improvement in his gait and no return of ability to write. Within six months his delusions took the form of apprehensions and he became hypochondriacal. He feared to walk out, to write letters, to play cards, and the like. He had occasional attacks of extreme mental confusion, or brief excitement. His disease ran a tedious course, and life was prolonged in the asylum nearly four years. His ataxia constantly increased, until it was impossible for him to walk. He had frequent convulsive seizures, and death finally resulted from exhaustion. No benefit whatever came to him from anti-syphilitic treatment. This form of disease has so much in common with general paresis that it is impossible to distinguish between the

two clinically, without a prolonged scrutiny of the symptoms and a consideration of their whole course. If no history of syphilitic infection can be secured, there is nothing to indicate with certainty that you have to do with a syphilitic brain disease. It may be added that the above is the most common form of syphilitic insanity which comes under the observation of the asylum physician.

Treatment.—The treatment of syphilitic brain disease may be dismissed in a few words. In the simple psychoses due to syphilis, in gross brain lesions like gummy tumors, and in the arterial degenerations which follow the disease, the use of anti-syphilitic remedies is all important. In the simple psychoses the iodide of potassium is the most serviceable. If there be persistent wakefulness at night and a general derangement of secretions it is frequently a good plan to give a huge dose at bed-time. In gross brain lesions also the iodide is of special value. In the different forms of arterial degeneration the bichloride and proto-iodide of mercury have proven most useful. All of these remedies should be given liberally and persevered in until a marked constitutional effect is produced. The McDade formula so highly praised by Dr. J. Marion Sims has not proven of the least service in any form of cerebral syphilis. In that form of syphilitic insanity which resembles general paresis no benefit in my experience comes from the use of any special anti-syphilitic treatment. The lesions here seem to affect the molecular constitution of the nerve cells and the hyperæmias and vascular degenerations are of central origin. Anti-syphilitic remedies by interfering with the nutrition of these degenerating brain cells hasten and do not retard the morbid processes going on within them.* Hence in the

* "Whatever be the morbid process that causes damage to the brain the symptoms are due to the latter; and the changes in the nerve-elements are much the same, whatever be the nature of the morbid process that causes

majority of these cases they do more harm than good. In the recent case of the actor, McCullough, I have no doubt but that the fatal result of his disease was hastened several months by injudicious attempts at anti-syphilitic treatment.' Such patients need quiet rest, freedom from irritating control and no powerful perturbating remedies.

these changes. We do not recognize this in one mode of speaking of these diseases. We speak for instance of 'syphilitic disease of the brain', but the damage to the nerve-elements is never syphilitic. The syphilitic disease is outside them, sometimes altogether away from them, and it causes in them simple processes of degeneration, etc., on which the symptoms depend."—*Gowers' Diseases of the Brain, p.* 201.

DISTURBANCES OF THE INTELLECT IN HEMIPLEGIA.*

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Were I obliged to describe all the psychical perturbations which we find associated with hemiplegia, and all the circumstances which precede, follow and accompany this affection, if it were possible to do so, I should far overpass the limits which I have deemed it advisable to assign to its study. We are not here to take under consideration all those mental maladies, of which hemiplegia is simply an episodal phase, however frequent they may be, such as epilepsy, progressive paralysis (paresis), consecutive dementia, idiocy from cerebral atrophy, &c., &c. I shall, on the contrary, confine myself to the recording of those psychical disturbances which are proper to the apoplectic attack, and those which are the mediate or immediate consequence of the cerebral lesion from which the hemiplegia proceeds.

We shall study two orders of psychical disturbances: the *concomitant* and the *consecutive.*

The first are those which accompany the apoplectic stroke, or are the developments of slower processes, in whose symptomatic combination hemiplegia is the predominant symptom.

The second are those which follow the cerebral lesion after disappearance of all the acute phenomena of the cerebral attack.

The first may be reduced to the states of conscious-

* Translated for the AMERICAN JOURNAL OF INSANITY, from *La Hemiplegia,* by Dr. Lenardo Bianchi, Naples, 1886.

ness in coma, or in sub-comatose conditions; or to a progressive narrowing of the intellective field by multiple foci, or by progressive compression of the brain.

The comatose state is presented in different degrees; that of complete *coma* with profound deadening of consciousness, complete laxity of the articulations and abolition of all reaction; that of *sopor;* in which there is absence of consciousness, but it may be aroused, and a series of reactions may be produced by very strong stimuli; or on the other hand there may be a simple *tendency to sleep*, and consciousness may be recalled by comparatively slight stimuli. Lastly the lightest degree of these states is represented by mental absence, with or without vertigo, with head pain and a certain degree of dullness.

These states proceed from causes of different nature, which act with different mechanism. There may be simply the *shock*, provoked directly by the cerebral injury, by which brain activity is suspended. This, however, can not be considered as the common cause. There are, most generally, anatomico-pathological conditions, which accompany or follow either cerebral hemorrhage or embolism, from which the comatose state proceeds, such as cerebral anæmia, œdema, compression, etc.

The comatose state may be established suddenly or gradually; it may commence in its highest degree, and recede by little and little down to mere somnolence, and then to complete return of consciousness; but it may, on the contrary, begin in a simple beclouding of the sensorium, and more or less speedily reach the degree of profound coma. In any case the characteristic fact is its announcement in the midst of health the most satisfactory, or but slightly disturbed by trivial and unboding premonitory symptoms.

Premonitory symptoms of graver character may have preceded, as recurrent headaches, giddiness, a sense of fullness in the head, change of temper; but the patients are not wont to attach any great importance to these; finally they are stricken down in the apoplectic attack.

That profound form of coma is much more rare, which is established without any remarkable premonitory cerebral symptom, and is usually followed, in a little time, by death (thundering apoplexy).

Permit me here to digress a little, in order to point out some differential characters between coma from a cerebral focus, and that arising from other causes. The coma of uremic poisoning (from kidney disease), is usually preceded by grave facts, which indicate renal disease, as œdema in the limbs, and the face; and during the comatose state we readily observe intense cyanosis, a tense pulse, the fibrillar contractions characteristic of uremic poisoning, or eclampsic convulsions; and after all these we have whatever may be shown by examination of the urine (albumen cylinders, granular cells of the renal tubes).

Coma consecutive on other poisonings (alcohol, oxide of carbon, morphia), is distinguished by our knowledge of the etiological factor more than by anything else, and next by some symptoms characteristic of each of them, as contraction of the pupil in morphia poisoning, (relating to which you will find in every book on therapeutics and legal medicine, the most minute details).

Epileptic coma, besides presenting its etiological factor, which affords the most secure diagnostic guide, is brief, and if it is prolonged (status epilepticus) it is interrupted by further epileptic convulsions, which render the diagnosis certain; the pupil in this case is usually dilated, and as it were rigid.

The attack of sleep, recently described by Charcot, is distinguished by the calm breathing, the unchanged temperature, the composed physiognomy, a cataleptic state of the muscles, its long duration, and especially our discovery of preceding hysteria. In all these contingencies, as well as in certain analogous states, that conjugate deviation of the head and the eyes, so frequent in lesions of foci in the brain, is wanting. Prévost regards this deviation as characteristic of destructive foci in the brain; the same phenomena may, however, be observed in epilepsy, but it is of short duration, lasting only so long as the convulsion. The congested face, the strongly pulsating arteries, the violent stroke of the heart, the hard and strong pulse, witness on the side of a cerebral focus.

When on the contrary the hemiplegia results from a lesion of slow development, such as cerebral neoplasms and thromboses, we usually observe a slow and progressive weakening of memory, with narrowing of the field of ideation, greater or less psychical depression, slowness in the processes of perception and reaction, somnolence, great irritability with diminished self-control. This state may pass from the abolition of every psychical activity into a state of stupor, which may be prolonged for days or weeks, until at length an apoplectic fit, or a status epilepticus closes the scene.

The post-hemiplegic, psychical phenomena are various, and they call for a still more extended analysis. Though the interpretation of the psychical phenomena during the apoplectic state, and also of those of hemiplegia of slow development, is easy, it is not so of those which so commonly occur in hemiplegia, in cases where the disease has been caused by a more or less circumscribed destructive focus.

The intellectual faculties are not localized in any

part of the brain, they are all in each part, in this sense, that all the different parts of which the brain is composed, contribute to the constitution of the psychical organism, and to the free play of the activities of the mind. A pencil touch, a tint, of no value *per se*, may assume a great æsthetic importance in the harmony of a painting; the like may be asserted of so many different parts of the brain, which appear not to possess any real importance in the aggregate of the psychical activities.

We may affirm as a prime fact which in general has few exceptions, that the hemiplegic individual, psychially considered, is always something different from what he was before the attack, of which the hemiplegia is most usually the unerasable blot. And yet how often by the commonalty, nay even by physicians, have such unfortunates been regarded as persons of perfectly sound mind!

Men who, in the past, were active, industrious, earnest in the care of their affairs and of their families, become indifferent, apathetic, indolent, and appear as if the fountain of their activities were exhausted; they are no longer capable of any important project or of carrying into effect any thought which demands a certain energy or a certain degree of moral force. The well spring of their imagination seems to have run dry; the man of daring projects stands indifferent in the face of those circumstances of external life, and in the presence of his own wants and those of his family, which erewhile were the very nutrients of his energetic industry. Sometimes thought yet lingers, but it does not reach that measure of force which impels to effective work; it is shadowy and fleeting. The memory is frequently defective, of words rather than of events; of substantives more than of verbs, and of recent more than of

past facts; his conversation becomes less lively, it is discolored, and blanks in it are observed; prolonged speaking is difficult, weariness readily ensues, he drops asleep while talking.

Such patients are sometimes tormented with grievous headaches, often with dizziness; they are occasionally assailed with feelings of anguish and oppression, as if near their end, and they become very sad. The temper at times is changed; the world outside has no longer a smile to gladden them. Every thing is in contrast with these deplorable conditions, every thing in the end is offensive, and pains them; they become morose. Being very susceptible of commotion, they are prone to anger, and they are reduced to the condition of wailing, irritable babes; the deformed *ego* peeps out from the broken harmony of the past, and, as if in scorn of the concord of the world outside, it coils up on itself, and between the fear of a greater evil, and its own impotence, it contemplates only itself, and forgets all others; the generous, open-hearted man of the past becomes wretched, buried in himself, pretentious. His affections towards relatives and friends are enfeebled to such a degree that he is unable to think of any but himself. At times the affections of hemiplegics are perverted; and when they form a wrong opinion, which so readily happens when their family and social relations are regarded from a morbidly egotistic standpoint, certain sympathies and unjustifiable, irrational antipathies spring up, and may exercise a very strong influence on their testamentary disposals. Their conduct, too, from a moral point of view, is not always irreprehensible; in this respect, when comparison with the past is made, a more or less significant degradation is to be observed, and both young and old, unless rendered very impotent by the paralysis, very often manifest immoral and

unchaste tendencies. This state of things usually undergoes a progressive deterioration. Perception becomes constantly slower and more incomplete, and their opinions more substantially false; the silly and insufferably querulous victims become enraged for any mere nothing; they are loquacious and incoherent, with reddened face, flushing eyes, and a tendency to violent acts. In such cases we may but too securely speak of actual post-hemiplegic dementia.

In the adult person who has become hemiplegic, as we have already said, the ideative field becomes continuously narrower and more obscured, from trivial haziness which eludes detection by all but the skilled observer, down to the most complete dementia.

When a destructive focus in the brain is established before mental development is complete, in any period whatever of youthful age, ulterior cerebral development is arrested. I have never seen any one who became hemiplegic in childhood or youth, who did not, in adult life, present more or less accentuated indications of imbecility; and this warrants me in affirming that, as regards the psychical activities, hemiplegia from destructive foci in the brain, is the graver, the younger the individual is who is struck by it. It is to this class of victims that many of those children and youths, who are ordinarily imbecile or idiotic, pertain.

If, as often happens, epilepsy supervenes on hemiplegia, a very frequent occurrence in the young, and not very rare in adults and old persons, all those more or less grave psychical anomalies may be presented, which are so frequently met with in epilepsy.

It is here appropriate that I should detain you a little on epilepsy, because it is a very frequent concomitant of hemiplegia, and sometimes it is a secure diagnostic guide, whatever may be thought by Adam-

kiewics,* who has expressed doubt of the influence of the cerebral cortex in the production of the Jacksonian epilepsy.

The epileptic attack may precede the hemiplegia; in this case the hemiplegia may be but an incidental fact, which may not have any direct connection with the epilepsy. It may however be the consequence of a focus that has been established during an epileptic convulsion. We may then have that transient hemiparesis of which Hughlings-Jackson has recently treated, and which he regards as dependent on exhaustion of the cortical motor zone consequent on the epileptic discharge.

Sometimes there may exist a focus in the vicinity of the motor zone, on which its influence is felt only after an epileptic attack, which is immediately followed by a hemiplegia or a monoplegia, that may be temporary or permanent.

Again, a focal lesion (or a tumour) may give origin to epilepsy.

Though the classic access of epilepsy is of little interest as respects diagnosis, yet the Jacksonian form of access is of very great importance, that is to say, the form in which the convulsion is partial, (restricted to the face and tongue, the upper part of the face and the eyes, the face and the arm, or the arms alone, or the lower limb, &c.,) in which case abolition of consciousness does not occur, or but seldom; or again the form which develops in invasion of one entire side, or all the musculature, yet observing, as is usual in this case, a serial order of development, and beginning always in a muscular group, of the face, or of one of the limbs, and extending into the remaining musculature always in the same order, and with tardy loss of consciousness. It

*Borliner-Klin. Nocheus, N 23–24, 1885.

may generally be held that the lesion in this case should be found in the field of the cortical or sub-cortical centre for the muscular group in which the convulsion is circumscribed, or in which it always commences. I conclude this part of my subject by saying that very intense mental symptoms sometimes precede the hemiplegic attack, which seems to be in intimate pathogenetic relations with these symptoms, as in a case related by Savage.*

Temperature; Vasomotor and Trophic Disturbances in Hemiplegia.—The range of the bodily temperature during the apoplectic state, and for some time after it, omitting account of those febrile states which accompany the processes from which the hemiplegia often proceeds, (such as cerebral access, encephalitis, and even also meningitis and peri-encephalitis), should be taken into careful consideration by the physician. An acute focus in the pons, or in the medulla oblongata, usually provokes a general elevation of temperature (up to 40 or 41° C: 104 or 105.8° Fahr.) hemorrhagic foci in the cerebral hemisphere may determine a great rise of temperature. If this takes place rapidly, and especially if it reaches 104.° Fahr., or higher, it has a very serious prognostic significance as regards the life of the patient (Bourneville);† sometimes it is accompanied by a grave and rapid decubitus.

In cerebral softening the temperature does not reach the high point which it is wont to attain in hemorrhage, and in general its range in the one or the other of these conditions, is diversely significant.

In the first two hours, as the mean, after the attack,

* Journal of Mental Science, April, 1883.

† Etude Clinique et Thermométrique sur les Maladies du systéme nerveux., Paris, 1873.

the rectal temperature, which oscillates in a case of softening around 98.6 F., shows almost always a lowering when cerebral hemorrhage has taken place; it may be found below 97.7, or even 95.9. After the first two hours from the initial attack, only sometimes and for a short period, in softening, there is a rise to 103.1 and 104°, but it soon descends to the normal degree; it either oscillates within very restricted limits, or evening and morning rises and falls are observed. In cerebral hemorrhage, after the first lowering, the temperature rises to 103 or 104.9 in grave cases, and it presents less oscillations than it does in softening; in truth, when a fresh rapid descent is verified, it may be regarded as indicating an added cerebral hemorrhage. These facts should be very accurately noted, and taken into account with all the others, and all the more seriously, as there are cases of cerebral softening (Bastian) in which a progressive rise up to 105.8, or above, has been observed, similar to cerebral hemorrhage; in either case the issúe is fatal.

Bourneville and Dr. Dubarry have lately reported a case of grave hemorrhage in the right hemisphere, in which the initial lowering of temperature was succeeded by a rapid rise, which did not, however, exceed 102.2°, and presented many remissions (as in softening), and yet the issue was fatal. Perhaps the location of the hemorrhagic focus has something to do with the range of temperature.

Sometimes an excessive lowering of the temperature (96.4) has been observed a quarter or half an hour after the apoplectic attack; this is of grave prognostic significance; in these fulminant cases death usually takes place soon in collapse.

Since Westphal's observations several writers have noted an analogous range of temperature in the

apoplectiform attacks of progressive paralysis (general paresis) and senile dementia. This fact pertains to conditions not yet known. From a series of observations of my own, I have been enabled to state that such augmentations of temperature have not occurred without presenting a reason for the rise; and I have also to observe that in several of the patients who died in the apoplectiform state, and in whom there had been a pretty manifest increase of temperature, pulmonary conditions were discovered, in the autopsies, by Prof. Armanni, which might have contributed to this increase.

A remarkable fact to which I can not avoid calling your attention, is that of the difference between the temperature of the two sides of the body, after all the phenomena of the apoplectic attack have disappeared. The side paralysed by a focal recent lesion is always warmer by some tenths of a degree than the sound side. This difference of temperature usually disappears in the first month. When, however, the fact is contrasted with what is found in hysterical hemiplegia, we are struck with the difference, since in the latter affection a thermic lowering of several tenths is observed.

After a month, a little more or less, the conditions of the temperature and vascularization altogether change in the paralysed limbs. The muscular paralysis enfeebles nutrition, and the paralytic dilatation of the vessels retards the blood current, and hence result increase of venous pressure, stasis, coldness of the limbs, some degree of cyanosis, a little œdema, and a difference as compared with the sound side in more or less secretion of sweat.

In order to offer to you an explanation of these thermic phenomena, I may here briefly mention that

Eulenburg and Landois have discovered a thermal centre in the brain of the rabbit and the dog. Kussner and Rosenthal have demonstrated that this centre is found some millimeters laterally to the saggittal suture, and behind the coronal (the field of the latent motor zone). Schreiber and Könisberg have reached the same result. Richet places the thermogenetic property in the anterior lobes of the cerebrum. According to other writers there would exist in the brain a moderating centre of the thermogenesis, as by recision of the medulla spinalis an augmentation of temperature may be obtained in the parts innervated by the inferior segment (Tachetschechim, Naunyn, Quincke, and lastly Wood in Washington, Arousohn and Sachs).

The vasomotor paralysis affects all the viscera of the opposite side, and the opposite half of the brain and of the meninges has been found congested, (Charcot, Ollivier, Bennet, Bacety). Corresponding congestion of the kidney has, in some cases, given place to albuminuria (Ollivier).

That there is a true vasomotor paralysis has been demonstrated by the sphygmographic researches of Wolff and Eulenburg, who made note of less fullness of the radial pulse on the affected side, from diminished contractility of the arterial walls. I have, on the other hand, frequently observed a polyuria in the first month after the attack, which at a later period disappeared.

To the same category of symptoms we may assign a slight œdema of the limbs, especially of the hand, which is palpable even within twenty-four hours from the attack, and is rendered more evident by raising the skin in folds. This is wont to disappear along with the augmentation of temperature.

Among the trophic disturbances of chief interest, is

decubitus on one of the buttocks, in the centre of the gluteal region of the paralysed side; it is announced among grave symptoms, especially when the focus is in the right hemisphere; it much seldomer is associated with a focus on the left. Between the third and the fourth day from the attack, there usually is manifested, without any apparent cause, (such as pressure, roughness of the bed linens, &c.), a redness in the centre of the buttock, which after a little gives place to phlyctenæ filled with sanies, and to a rapid necrosis of the skin and the underlying tissues. These conditions are less frequently observed on the knee and the heel. Death takes place most usually in the midst of these septic phenomena.

In some instances decubitus is presented, not only on the paralysed side, but also on the other. Pulmonitis appertains to the same category; it is usually of grave course, adynamic, and it has exit in gangrene. Browne-Séquard and Schiff experimentally observed in animals, after lesion of the brain, the supervention of death from pulmonitis. Pulmonary morbid conditions, usually hyperæmia, œdema and extravasations, were produced after experimental lesions of the peduncles, the pons, or the medulla oblongata, and after section of the vagus.

Trophic disturbances, occurring in the bones and the articulations, are not less interesting (Scott, Alison, Charcot, Browne-Séquard, Hitzig). A true acute phlogosis may happen in the first month after the apoplectic attack, more generally in the knee of the paralysed side, with swelling, redness, pain, and effusion into the cavity of the articulation. At other times it is of chronic form, and this is most usually found in the shoulder joint, which becomes immovable, and is pained by passive movements; crepitus is heard, and

at a later period subluxation is observed. Whether these states depend exclusively on vaso-motor paralysis, whether a true trophic action intervenes, or the chronic form is to be attributed to the mechanical action of the abnormal position of the bones of the shoulder (Hitzig), are questions on which I do not deem it opportune here to enter.

When hemiplegia occurs in infancy it is readily perceived that the affected side is not developed as fully as the sound one—it falls behind. Bastian has observed that in infancy the right side is more usually paralysed than the left, and that the arrest of development is more manifest in the peripheral parts (as the hand rather than the fore arm, and this rather than the arm), and the muscles, the bones and articulations participate in the arrest.

The alterations in the nails and the hairs and epidermis in hemiplegia are noteworthy. The nails become hard and brittle, and lose their normal smoothness and colour; the hairs sometimes become long and coarser; the epidermis falls off in an abundant scurf; I have noticed a condition of the skin very much like scleroderma; the fingers, in which this change is most observable, appear tender and ligneous. All these conditions are observed when contracture is present in a rather notable degree.

In some cases, the adipose tissue becomes more abundant on the paralysed side, especially in children. In hemiplegia from a cerebral focus the muscles seem to be better spared; their volume is maintained unchanged for a long time. But when contracture is energetic and lasts for some time, nutritive changes take place in them also; and here I advise you not to hold it as ratified and well-founded, as I have often heard it stated, that in hemiplegia from cerebral lesions, the

muscles normally respond to electric stimulus. I have, in this form, not very seldom met with notable deviations from normality, which escape superficial examination, and the error has been repeated in treatises.

In the first period a certain augmentation of electric excitability may be observed. In eight recent cases, on which I made comparative electric examination, I found augmented electric, galvanic and faradic excitability in six; in two, in which sensibility was much diminished, I did not observe any quantitative alteration.

In twelve old cases examined with the like object, in the hospitals of Loreto and Vita, I found a serious quantitative alteration of electric excitability in six, and a qualitative alteration in two, (intermediate degenerative reaction).

When there has been contracture, especially for a long time, a certain slendering of the muscular masses is noticed, though without the intervention of any degenerative process. In the course of time, whether from the shortening of the flexor muscles, or from stretching of the extensors, the latter undergo a slow degenerative process, which is revealed by electric examination (successive, slow, faradic contractions; galvanic contractions of A C, equal, or nearly so, to those of C C). These facts are rendered still more evident in those muscles which are near the articulations, when the latter become the seat of those trophic disturbances, of which I have a little before spoken, and they have nothing in common with that muscular atrophy which appears and progresses rapidly, when sclerosis of the pyramidal cords determines atrophy and disappearance of the cells of the anterior cornua of the medulla spinalis, in which case all the facts of muscular atrophy are to be observed.

I must not omit to call your attention to an ultimate fact respecting trophic disturbances; it is the frequent coincidence of hemiplegia with diabetes.

It has been known from the first researches of C. Bernard, that lesions of certain parts of the brain produce glycosuria. De Jonge, (Arch. f. Psych. und Nervankr, Bd. XIII), relates an important case of tubercle in the medulla oblongata, in which diabetes was an important secondary symptom. In the same thesis eleven other analogous cases are collected. But it is not less certain that glycosuria, *per se*, whatever may be its cause, reacts on the nervous centres, inducing in them lesions of different sorts; and it is now well known that among the most important symptoms of this nature, are to be placed transitory monoplegias, of mobile character, or hemiplegias which, at first dissociate, are slowly developed and become more grave; they are accompanied by intellective disturbances, and are usually due to zones of softening resulting from vascular alterations. At other times diabetes is a simple coincidence of the cerebral focus, perhaps, because of diffused processes of arterial sclerosis, as in a case of Raymond and Artaud, (Encephale N 3, 1883). So also many of the cases reported by Seegan, Pavy and Dickenson, and the three by Cantani, who has furnished a just criticism of them.

Nature of Hemiplegia.—Before passing to the last chapter in which I intend to detain you on the subject of hemiplegia, it appears to me opportune to say a few words on the differential diagnosis of some of the more common forms of hemiplegia. I have already, in one of our first lectures, when speaking of hemianæsthesia, stated the differential diagnosis between hysterical hemiplegia and hemiplegia from a destructive

focus in the brain. I shall now, as you have often requested me to do so, speak of another form, which not unfrequently occurs in practice.

There are hemiplegic forms from spinal lesion. You will already have understood that spinal hemiplegia is always incomplete, as with it there is never paralysis of the face. It may resemble dissociate or incomplete hemiplegia from a cerebral focus, but it is distinguished from it without much difficulty.

There may be a hemi-section of the spinal cord, far up in the cervical portion; we shall then have paralysis on the same side with the lesion, without muscular atrophy, unless in some muscles or groups of muscles that are innervated by the nerve root which has been divided, and if other morbid processes in the medulla do not intervene, electric contractility will be normally conserved. If the pyramidal nerve fibres are cut, there will be, in identical conditions, degeneration of the tract below the wound, with augmentation of the reflexes and sometimes contracture. I have before, in treating of the course of the fibres of sense in the spinal medulla, spoken of the behaviour of sensibility in these cases. The hemianæsthesia which commences above, at the level of the paralysis of motion, is found on the other side.

Primitive sclerosis (Erb, Charcot, Dreshfeld, myself, Hopkins, Minkowski) of the pyramidal fibres with integrity of the spinal grey substance may, in its origin, give place to paralysis on one side only; we then have rigidity, contracture, and augmentation of the tendon reflexes. At this time suspicion of a cerebral process may arise, but it may be overcome by the following facts: The rigidity is usually manifested first in the lower limb, and afterwards it invades the upper, or vice versa (rather seldom); no cerebral

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symptom precedes it, or accompanies it in the outset. Frequently, on the other hand, it is preceded by paræsthesias in both the lower limbs, and the malady begins with rigidity and contracture; there is absolute integrity of sensibility; no participation by the facial and the other cerebral nerves; absence of any other cerebral phenomenon whatever; the presentation, usually soon verified, of the paralysis on the other side, causing the two to assume the form of spastic paraplegia, will exclude the idea that it could have been produced by a cerebral focus. Degeneration of the pyramidal fibres may sometimes originate in the brain and be diffused downwards in the cord; in this case the diagnosis presents very great difficulties, perhaps not always surmountable.

Another form of spinal hemiplegia belongs to the myatrophies. Not unfrequently infantile spinal paralysis (acute poly-myelitis of infancy) presents in hemiplegic form, and in such cases we may be drawn into error, because the disease frequently sets out with, and is accompanied by, grave cerebral symptoms (convulsion, coma, somnolence, delirium, &c.), whilst on the other hand hemiplegia from cerebral lesion in children, frequently produces arrest of development of the limbs, which appear shorter and more slender, a fact regarded as so characteristic of spinal infantile paralysis. It is distinguished from hemiplegia caused by cerebral lesion, thus: 1st. The paralysis is complete and is always flaccid, whilst cerebral hemiplegia is rarely complete, and is almost always spastic (from post hemiplegic contracture). 2d. The articular heads, in atrophic spinal hemiplegia are almost always drawn away from each other, and the ligaments of the joints are relaxed; nothing similar is seen in cerebral hemiplegia. 3d. The muscular masses are atrophied in

atrophic spinal hemiplegia, and sometimes they even disappear; they either do not at all respond to electricity, or they present qualitative anomalies with degenerative reaction. In cerebral hemiplegia the muscles and the nerves always respond to electricity, or at the most they show some quantitative anomaly of electric reaction. 4th. The tendon reflexes have disappeared in atrophic spinal hemiplegia; they are exaggerated in the cerebral. 5th. Sensibility is always conserved in the former, not always complete in the latter. 6th. Intellectual development proceeds very regularly in children struck with acute poly-myelitis, indeed, they frequently appear more intelligent and smart; on the contrary those affected with cerebral hemiplegia always show much to be desired in their intelligence and the development of their affective faculties; usually, indeed, the development of these is arrested, sometimes they are perverted, and with accompanying affective excitability. 7th. In these children epilepsy is frequent, it is very rare in those affected with atrophic spinal paralysis.

Hemiplegia, or some of its symptomatic manifestations, may depend on lesions of the peripheral nerves. Leyden, in his Treatise on Spinal Diseases, relates a case of left hemi-paresis with atrophy of the muscles, developed after a gunshot wound in the left thigh. More important still is the case reported by Ferrier, (*Brain*, 1883, Part XX), which shows the possibility of development of a degenerative morbid process in the whole of the anterior grey column of one side, in the spinal medulla, after an irritation of long duration, in the peripheral nerves. In these cases the same differential characters are observed, as we have established for acute poly-myelitis.

Much greater difficulty is presented by the differential

diagnosis between an athetosis from cerebral origin, and one with the same characters, which may perchance depend on multiple neuritis, now that this affection is assuming so much importance in the pathology of the nervous system. Löwenfeld presents to us the occasion for this consideration, in having reported a case of athetosis dependent on multiple neuritis.

As respects the relation of the injured cerebral hemisphere and the side of the paralysis, it may be held that it is always crossed. From the researches of Flechsig it has been known that, in some very rare instances, the pyramidal fibres have been found uncrossed; at the most, the relation of the crossed and uncrossed fibres changes, but crossing is the almost constant rule. Browne-Séquard, the most strenuous advocate of direct hemiplegias, has been unable to collect, in all the ancient literature, and in the modern too, more than about two hundred cases of hemiplegia from lesion of the same side. But this figure is not exempt from reduction, when we consider the superficiality with which observations on nervous disease were made, before the last twenty years, and when we reflect that some of those of even more recent date, should not pass uncriticised. Thus, in the case of Blaise (Progres Medical, 1883, N 17,) there was right hemiplegia with disturbances of speech, and a focus of softening was found in the external segment of the lenticular-nucleus, and also in the fusiform convolution. But no account was taken of the state of the cerebral vessels, nor was any microscopic examination made.

Sometimes there is hemiplegia on the same side as the cerebral lesion, but from double crossing, one in the brain, the other in the upper part of the spinal cord.

I know of but two cases of this sort, both published in Italy—one by Sciamanna, the other by Marchi. That

of Sciamanna, however, remains always obscure, as no research was made to determine the relation between the lesion in the hemisphere of the right side, and the degeneration of the left cerebral peduncle.

In order to complete this diagnostic sketch I must detain you a little yet, on the differential diagnosis between cerebral hemorrhage and softening (whether from thrombosis or embolism).

In the present day we do not attach any importance to certain differential symptoms, regarded as of great value by the ancients as premonitory phenomena; vertigo, headpain aphasia, duration of the coma, paralysis oftener on the right side than on the left. All these may consist with either hemorrhage or softening.

During the cerebral attack the face blazing and congested, the strong impulse of the carotids, the presence of hemorrhage in the fundus of the eye, bear testimony to hemorrhage in the brain. Profound and prolonged coma testifies more for hemorrhage, excepting in the event of a thrombosis of the basilar artery, in which case the symptoms are equally serious as they are in grave cerebral hemorrhages.

On the contrary, when it is known that there exists a point of departure for embolisms (ulcerous endocarditis or chronic valvular disease), and when embolisms exist in other organs, as the kidney or the spleen, we should lean to the decision for embolism. Auscultation of the heart is important in this relation, as sometimes the sound or souffle on the focus of the mitral valve, or the aortic semilunars, may be found much changed from its former character, after the cerebral attack. I shall always remember the case of a woman received into the hospital of S. Eligio with an endocarditis, and in whom there was heard a sound on the mitral, with wide and strong vibrations, as of a morbid rasping.

One morning in my visit, I found her hemiplegic on the right side; the sound was now changed to a soft, prolonged souffle. In these cases diagnosis of embolism may, up to a certain point, be considered as safe.

A diffused hemiplegia that is dissipated in the course of a few days, should lead us to decide on embolism, rather than hemorrhage.

In fact it is easy to suppose that the prompt re-establishment of the collateral circulation, in some parts of the ischæmitised area, should cause many symptoms with which the disease was announced, to disappear. The anatomo-pathological conditions of cerebral hemorrhage permit this supposition. On the other hand the tendency of thrombosis to extend backwards may seriously implicate other arterial branches, and hence other cerebral areas may be involved in a progressive aggravation of symptoms. This, however, is not the usual case in thrombose occlusion of the small terminal arteries.

The presence of chronic nephritis and of hypertrophy of the left ventricle, tells rather for hemorrhage,* vice versa, softening is more frequent when diffuse atheroma exists, even when in this case there is hypertrophy of the left ventricle, or when there may be simple dilatation of it, with cardiac weakness or marasmus. When, also, an attack with symptoms of a focus has taken place instantaneously, and a lasting hemiplegia ensues, we can not say absolutely that it depends on cerebral hemorrhage, since it may, for the same reason, proceed from cerebral softening. Bastian, however, believes that thrombosis is preceded by prodromes more notable, and for a longer time, than hemorrhage. This is, at the least, true in a certain number of cases.

* Yet Bastian (on Paralysis from Brain Disease, 1875,) concedes no value to this symptom.

Speaking generally, and casting our eye over the case histories of Exner, Charcot, Pitres, Wernicke, &c., small cortical or subcortical foci are, in the majority, foci of softening, and in the minority foci of hemorrhage; hence monoplegias originate more frequently from softened than from hemorrhagic foci.

Abolition of the muscular sense, as indicating a cortical lesion, consists more with softening than with hemorrhage. I have already spoken of the different range of temperature in hemorrhage and softening.

Beyond these data we may conclude with Nothnagel, that all attempts hitherto directed to the distinguishing of hemorrhage from autochthonous thrombosis, have proved fruitless; and with Wernicke, thus: "We may be satisfied when we reach, in about one-half the cases, a just diagnosis between cerebral hemorrhage and softening; in the other half, it is in general impossible."

EDUCATION IN RELATION TO HEALTH.

BY DANIEL CLARK, M. D.,
Superintendent of the Asylum for the Insane, Toronto, Ontario.

In discussing such a practical matter as education we may consider the brain and mind as a co-partnership in which the two members of the firm must be mutually affected. In this aspect of the matter we may say the organ and the mind are co-relatives.

It may also be granted that a healthy brain is needed to do normal mental work. When there is a feeble brain there is also a feeble mind. Vigour and robustness are needed in both. Scope and intensity and harmony must be among the capacities of this duality. As well expect to bring out of a Jew's harp the melody and harmony of an organ as to attempt to evolve from a flabby and sluggish brain the ideation and mental combinations of a healthy and natural man. The unstrung lyre cannot produce sweet sounds even if struck by the hand of genius. So mind phenomena can only be produced according to the tone, scope, and health of the organ. A good instrument, in tune and used moderately, will fulfil its function of music producing.

The brain is a wonderful organ in its construction and adaptation. It is the least organized organ in the body, hence its capacity for many-sided work. At the same time it has to be tenderly dealt with, as its powers of restoration are low. Its ordinary work is enormous, seeing that one-fifth of all the blood in the body is needed to keep up its vitality. It is only a meshwork of tubes and cells, among which blood vessels spread everywhere. The cells are in every head by the millions, and every emotion, thought, and volition

means the work and death of hundreds of these cells. Nature has immediately to fill their places through its blood supply, or if not we have insanity or death. In the battle of life each cluster of cells is a phalanx, and as Scott describes the serried ranks at Flodden so are they:

> "Each stepping where his comrade stood,
> The instant that he fell."

It will then be seen that if we call upon the reserves in our daily struggles we can have no conserving forces to fill the breaches caused by the dead which are constantly being carried off in the ambulances of nature. As I have said the brain is simple in construction because of its many and divers functions. An organ with a specific work to perform is complicated because of this specialty. It is built up with an object in view, and all its arrangements focalize to one result. This is true of the liver, kidneys and digestive apparatus. The clock is arranged to do one thing, namely, measure time. The steam engine is made to generate power and apply it by steam. They are good for nothing else, as they were made for those specific purposes. The boy's pocket-knife, the crow-bar, the hoe, and the shovel are useful in many ways because they are simple in their manufacture and general in their uses. It will be seen then how necessary it is to have the organ of the mind a simple instrument to do its multifarious work. Sensation, ideality, volition, memory, imagination, emotion, affection, desire, passion, and all the forms of automatic physical life are only part of the phenomena manifested by nerve operations. Were it complex in its functions, its range of possibilities must necessarily be circumscribed. This fact is proved by analogy in the same body which contains the brain. The proper building up of a brain in all its functions and the aids to

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giving it abiding power are based on the same physiological law as that of training a race horse or an athlete. It means not only development, but also endurance, especially by training in certain natural lines of production. It is not to be inferred from this that certain faculties are to be cultivated to the exclusion of others. This is done in the prize-giving stimulation of schools and colleges. This system gives rewards to those who excel in one branch of study with a minimum of knowledge or capacity in any other. This leads to one-sidedness, while the rewards (if any) should be given to the best all round scholars, not ignoring natural aptitudes nor mental leanings towards certain lines of thought.

This would lead to moderate and multiform development, having regard to our diversities and idiosyncrasies. Education and instruction are different. The former means development of body and mind, while the latter means simply a mere knowledge of facts. A child may be full of facts and its education not begun. The neglect to consider this important physical law is leading to the generation of many of the nervous evils which now afflict the civilized races. At no time in the history of the world has education been more diffused among the common people, and at no period have nervousness, excitability, brain exhaustion, and insanity been so prevalent.

It is well to consider, if there exists any connection, and if so, how much, between national nervousness and forced education, between juvenile brain tension and adult brain debility. It may be we are discounting the future by forcing mental growth in the young beyond the natural capacity.

These are two entities whose relation seems to be largely forgotten in education. The architect of fate

needs proper tools to do his work with. Education means the preparing and sorting these tools for the builder.

This mind organ is delicate, simple, and easily impressed. It can be operated upon or it can be used as an instrument to evolve all mind action. In other words, it may receive impressions, or it may inherently manifest mental power. It may merely be filled with easily acquired knowledge, which may be the work of others, or it may give out its own energizing creations. In the former class of impressions it is only receptive, which is merely an appeal to memory; in the latter is exercised in mental dynamics, and brings into being new ideas and native conceptions. To imbibe as a sponge gives no energy and no strength, but to grow as a tree gives power by virtue of the exercise of its increasing activity. Not only so, but this energizing entity increases the volume and stability of the organ, as physical exercise increases muscular tone and fibre. Inertia means debility, for

> "Labour is life.
> 'Tis the still water faileth."

On the other hand early precocity mostly means adult enfeeblement. It is taxing the future by unduly straining the brain, from which it seldom recovers, and as a result we have a languid organ and a stunted intellect. Those who educate scout this idea, because their handiwork is best seen in forced effort and juvenile automatic memorizing. These prodigies of learning astonish trustees and parents and redound to the teachers' credit. Those who teach believe that there is an unlimited capacity for thinking in all directions in every person. All the mental powers are pushed on all sides without respect to weak points.

As a result, the reserves of nature are called upon at the expense of growth, brain nutrition, and the building up processes. All minds put forth energies in one direction more than another. Here our individual differences come in. None of us are formed in the same mental mould. Even our potentialities vary, but are interdependent upon one another. They have a community of interests and draw resources from one another. This being the case, it is evident that the pushing forward of all the faculties at once, irrespective of natural bias and aptitudes, means a dwarfage of individual leaning because of the dissipation of reserve energies. Let me repeat. The educator looks at the mind development alone as evidence of his skill and assiduity. The physician looks upon both body and mind as objects of care, and endeavours to keep both under healthful conditions. The educators thinks that the mind in each individual has possibilities and potentialities almost unlimited if pushed to the test. The physician knows that each person has powers of growth and development beyond which such can not go, by any amount of mental training. No forcing can go beyond the brain capacity, and that at its weakest point. This is especially true, when hereditary tendencies are taken into account. We have at our disposal only a certain amount of energy. It is transferable to some extent, and if used in one direction, it is lost in another. This law is seen in operation in animal life as well as in mind phenomena. Exhausted muscular force means to some extent mental loss, violent emotion, or sudden physical shock means in some degree muscular and organic enfeeblement. To a large extent this duality co-relates with one another. This being the case, it is evident that undue forcing in any one direction affects the whole organism. The

harmony of nature is disturbed by an unnatural distribution of energy. Another physiological axiom is that all bodily and mental energy needs a natural time to be utilized most effectively. Forcing always means great waste. To run a mile is more exhausting than to walk five miles. To do in an hour what should take ten hours, if continued, would mean utter prostration. To do in five years what should take ten years is equally disastrous to nerve power and mental health.

Many come out unscathed from this ordeal of overpressure, but if there are natural weaknesses, then is this rattling pace utter ruin to the racer. It means the consumption of stored up power, which nature keeps on hand only for emergencies. Nature is a banker with wealth in store, but if left to itself it never draws upon the principal, as that means, in the future less interest, and if continued must end in bankruptcy.

The London *Lancet* of September 20th, 1884, says:

> Life is played out before its meridian is reached, or the burden of responsibility is thrust upon the consciousness at a period when the mind can not in the nature of things be competent to cope with its weight and attendant difficulties. All this has been said before. There is not a new word or a new thought in it, and yet it is a very terrible and pressing subject. We can not give it the go-by. "Forced" education commenced too early in life and pressed on too fast is helping to make existence increasingly difficult. We are running the two-year colts in a crippling race, and ruining the stock. The underlying cause is impatience—social, domestic, and personal—of the period of preparation, which nature has ordained to stand on the threshold of life, but which the haste of "progress" treats as delay. It is not delay, but development, albeit this is a lesson which rash energy has yet to learn from sober science.

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In mental training two objects should be kept in view. The one is to store the mind with the knowledge garnered by others, and the other is to strengthen the

mind and to enable it to evolve out of its knowledge new ideas which are the products of its own efforts. The earth absorbs and nothing more, but the plant both absorbs and assimilates and builds up. So it is with two classes of mind. We all have plenty of facts, but the discoverer has always found out additional ones in his own mental research; hence his vantage ground over the mere copyist. He has crammed some, but he has evolved more. He has not merely memorized, he has also judged. The good memory is the means of carrying off all the prizes at competitive examinations, yet the best average mind will eclipse such in life's struggles for the mastery. There are, no doubt, a great many of our educated people who depend largely on remembered learning, and that many self-made men are distinguished by virtue of inherent power to originate. The great are not mere receptive machines; they put their talents out to usury; they are not merely recording instruments, but add to the common stock of knowledge by exploring new fields and by giving their experiences and discoveries to the world. Were it not for these pioneers we would still be floundering in the slough of barbarism.

It is self-evident that to merely cultivate memory is one thing and to evolve thinking is quite another. Cramming means mere remembrance, and may be indulged in with no more originality than are the chatterings of a parrot. This system carried to extremes gives mental dyspepsia, because there is not sufficient intellectual energy to assimilate the pabulum provided. Memory has its function, but to put mere recollection in the place of education is to dwarf all originality of thought for want of mental development. Each epoch of life should be left to do its own duties. The child, the

youth, and the matured have laid out by nature unmistakable boundaries, which precocity should not be allowed to prematurely overstep. This encroachment is the bane of our present system of domestic and educational life. It is the popular fashion to endeavour to make, by forcing, men and women of mere children long before they reach the adolescent age. This hot-house mushroom growth means early decrepitude and decay of both body and mind. This law of growth is operating in all animated nature. The slowly growing tree is the hardiest. It takes deepest root, it has the toughest fibers, it grows heavenward the farthest, and in robustness defies the storms of centuries. There is in all beings, possessing vital life, a certain proportion between the time a living creature comes to maturity and that of its natural decay. Some insects have a lifetime of birth, youth, maturity, and death in a day. The hen is old when the dog is young, the dog is old when the parrot is young, the parrot is old when the eagle is young, and the eagle is old when the elephant is young. Each according to its kind has a graduated scale of proportions in the different eras of life. Man is no exception to this rule. We may say a woman is fully matured at twenty-two years of age, and the man at twenty-five years. This general law of proportionate periods is seen in the brain. In this wonderful organ this physical law is in force, but not in the same periods as in other parts of our bodies. The brain comes to maturity on an average five years later than the body elsewhere, and therefore this mental instrument is comparatively younger than the other parts of the body, and, as a consequence, more tender and susceptible in youth than is the muscular system. The full limbed and chubby faced baby who squalls and kicks with vigour and eats enormously, as it performs gymnastics

on its mother's lap, is the picture of physical health, but its feeble and semi-fluid brain grows slowly, as it is needed but little at this stage of automatic life. The brain gets behind in the race of life until the muscular system develops somewhat and thinking is needed for self-preservation. This conservation of brain force is a wise provision, when taken in conjunction with comparative growth and decay. It enables us to possess vigorous brains and strong minds, long after our knees are becoming weak; our hands showing signs of shakiness; our shoulders having a stoop in them, and we begin to gravitate bodily towards the earth from whence we sprang. As age creeps on, waste is getting the better of repair. In youth, there is not only a holding of the fort, but also an extension of its defences, hence the greater demand for building up material. The boy has to grow. Mental overstrain in youth and manhood is becoming a peril to the more civilized races. This malign influence of undue mind friction, and which begins in our schools, will have its full fruition in national deterioration and decay. Vice, lust, and moral corruption are largely found among the mentally defective classes. The nervous, over-strung, over-tense brain in one generation means low mentally or ill-balanced minds in the next. This is nature's inexorable law. The only hope there is, lies in the fact that the weakest goes to the wall. "The survival of the fittest" is no Utopian dream, nor scientists' unfounded dogma.

A fierce fight is kept up all along the line, and when the enemy breaks through there are no reserves to repel the attack, hence irretrievable ruin.

It is not well to run a machine up to its fullest tension; nor is it prudent to make a bridge with an arch only strong enough to support itself. The application is evident in reference to brain work and staying power.

To be a good, strong human animal, as well as a muscular Christian, is the substratal condition of national greatness and goodness.

In the palmy days of the Jews, the Grecians, the Macedonians, and Romans there were few weaklings. There was no mental cramming and few mind dethronements. There was little sentimentality about any class or condition when the interests of the State were paramount, and when the effeminate perished in the personal encounters of a rude warfare. The vigorous brain and powerful body were the most likely to survive, so by this sifting process a race of conquerors was produced. All the nations of antiquity fell in succession before more hardy foemen, but only when effeminancy and brain weakness had sapped the prowess of those conquered races. They were rotten at the core. Our day of decadence is surely coming through similar influences. We hide our defectives, our dements, and our pauper infirm in havens of refuge out of our sight. Had we not these retreats and all our mentally and physically afflicted were allowed to drift about in the community as in former times, these ever-present evils and evidences of national depreciation would frighten us. We would study more than we do the laws of health, and how best to develop and maintain moral, intellectual and national supremacy.

Look at the ever increasing demands for hospitals, asylums for insane and imbeciles, schools for feeble-minded, retreats for nervous complaints, almshouses for human wrecks, prisons for chronic and congenital vagabonds, and then say if a vicious system of sanitation, of customs, of habits, and of education has not something to do with this state of things. This is not the Jeremiad of the pessimist; rather it is the story of a danger signal to which we would do well to take

heed. The great restorer of brain power is profound sleep, and plenty of it to the school-going child. It stores the vital battery with mental energy. The child wants a dreamless forgetfulness to fully recuperate from its daily exhaustion. This is a physiological axiom. It is also forgotten that much depends on the kind of exercise a scholar takes. Work of some kind is better than none, but it is not invigorating like play or some kind of amusement or enjoyment. These are mental tonics which have no equivalents. The boy will soon tire or weary sawing wood or weeding flower-beds; but let him play fox and hounds, or football, and his energy is almost tireless. The girl sees no pleasure in practising on a piano at her lessons, or washing dishes in the kitchen, but let her dance from evening to morning, or roam the woods at a picnic, or go a boating, and her endurance is a matter of astonishment. Pleasure goes with the exercise, thus it is nature's stimulant and invigorator. When such boys and girls are approaching adolescence it is well to find out their natural bent of mind, and having done so, to lead the superabundant energy in the direction of well-liked and well-directed technical, professional, or mechanical pursuits. This is the critical time when a proper choice of occupation may mean pleasure in its pursuit, or a life-long drudgery in unnatural and unpalatable employment. Brain work is needful and healthful. It is a law of nature that activity is necessary to health, but it must be exercised in accordance with the laws of health. The twenty horse-engine must not be run with twenty-five horse power. This is violating rightful conditions. Over-pressure, undue anxiety, violent passion, worry without needful rest and fresh air, always mean a premature wearing out of the machine. A brain under such disadvantages

will not live out half its days. To appreciate our danger in this respect let us look at our school studies. In some of the more advanced classes we find that from fifteen to eighteen studies are required in five days of every week, not to speak of Sunday schools. Take school hours, and add to them, say two hours of evening or morning study, and we have for close mental application as many hours as are needed to do the daily work of a robust adult mechanic. To state this is to show the folly of our system of education, when exercised on the young and tender brains of the coming race. We forget that it is better to know everything of something than little of everything. The disgust for studies in adult years arises largely from our school work being forced upon us in nauseating doses, and also the choice of such as is uncongenial to our taste. Were I to formulate the prominent natural features of the mind which need education I would say:—Quality (tone), quantity (power), tension (endurance), variety (scope), control (habit). These are given to us as a legacy, and to no two alike, but proper training increases them to a wonderful degree if guided with wisdom and discretion.

Education should be conducted somewhat as follows:

1. No teaching beyond object lessons up to six years of age.

2. Object lessons with reading and writing up to nine years of age.

3. Reading, writing, arithmetic in its four primary divisions and geography up to twelve years of age.

4. The preceding with history and primary arithmetic and grammar up to fifteen years.

5. From this age such studies as will assist the girl

in feminine duties and the boy to some definite employment or profession.

6. No studies in the evening until after fifteen years of age.

7. Three hours daily of school time up to nine years of age, four hours to twelve, and six hours until fifteen years of age.

8. After fifteen years of age studies to be intermingled with congenial and useful mechanical work. This to apply to both sexes.

THE CARE OF THE INSANE IN THE STATE OF NEW YORK, HISTORICALLY CONSIDERED.*

BY STEPHEN SMITH, M. D.,
State Commissioner in Lunacy.

We have been invited to attend the graduating exercises of the first class of the Training School for Attendants connected with the Buffalo State Asylum for the Insane. The occasion is one of no ordinary interest and importance. It is the first event of the kind in the history of the public care of the insane.† It begins a new era in the progress of the great reforms which have characterized this century in the improvement of the methods of ministering to the wants and necessities of this unfortunate class.

The full significance of these exercises can not be appreciated without understanding the past history of the management of the insane in this State. During the century of the existence of the State, now about to close, we may find every phase of care of this class of dependent poor, from the most barbarous to the most intelligent and benevolent. We need not go beyond the limits of our own commonwealth to find illustrations of the care of the insane in every period of the world's history. They have been treated as demoniacs; have been classed with the lowest grade of criminals; have been regarded as paupers, requiring the custody of the almshouse; and, finally, they have been taken in

* An address delivered before the first Graduating Class of the Training School for Attendants at the State Asylum for the Insane, Buffalo, N. Y., April 20, 1886.

† Since this address was delivered it has been reported that a class of trained attendants graduated from a school in Massachusetts, in March of this year.

their true character as sick people, requiring hospital care and attendance. Costly structures have been erected for their special purposes and uses, and they have been treated with the utmost tenderness.

The first law placed upon the statute book of the State of New York, relating to the treatment of the insane, was enacted in 1788, now nearly a century ago. This law gives us a vivid impression of the condition of the insane at that period, and of the state of public opinion in regard to them. The Act was entitled "An Act for apprehending and punishing disorderly persons," and was as follows:

> *Whereas*, There are sometimes persons who, by lunacy or otherwise, are furiously mad, or are so far disordered in their senses that they may be dangerous to be permitted to go abroad; therefore, be it enacted that it shall and may be lawful for any two or more justices of the peace to cause to be apprehended and kept safely locked up in some secure place, and, if such justices shall find it necessary, to be there chained, if the last place of legal settlement be in such city, or in any town within such county.

This short but expressive act is prefaced with the significant phrase, "We, the People of the State of New York, represented in Senate and Assembly, do enact as follows." It stands, therefore, as the embodiment of the highest and best sentiment of the people of this State, regarding the insane, at the commencement of its organized civil existence. It was the popular opinion that only those insane who were "furiously mad," or so far "disordered in their senses" as to be "dangerous to be permitted to go abroad," needed public care; and these poor wretches were to be taken into custody, not to benefit them by the ministrations of benevolence and humanity, but to protect society from their acts of violence. The quality and the grade of care which they were to receive were

well defined in the Act, viz., they were to be "kept safely locked up in some secure place," and if their custodians found it necessary, they were directed to have them chained there. That this law was rigidly enforced the current history of the times affords abundant evidence. The lunatic in public care was found in every jail, despised even by the criminals with whom he was associated, and in the vast majority of cases he was chained. A contemporary medical writer, of New York, speaking of the methods of confining the insane, says:

> Everything that met the view of the exiled sufferer, about to enter them, was suited to convey the idea of confinement and restraint, and that he was to be immured in and subject to the hardships of a prison; an impression of lasting and pernicious tendency. He was, indeed, there shut up from the world, separated from his friends, and covered from the light of day; and amidst the aggravated horrors of a dungeon, the chains which riveted his ghastly figure to the ground, bound also in everlasting night, the distinguishing attribute of his being. In such a situation, without an effort to revive the suspended energies of his mind, with nothing to awaken him to a sense of his human nature without a ray of consolation, of affection, or of sympathy to beam upon him, he remained a neglected, forgotten, and abandoned prisoner. Thus forlorn, the whole plan and system of his custody, were of a nature to drive him to despair, and to the hopeless, the awful condition of irremediable madness.

The public care of the insane in this State has been quite closely modelled on that of England, and to the latter country we must refer for many of the more important features of our laws on lunacy administration. This first Act of our State Legislature was exactly copied from the vagrant laws of England. It was the first Act of Parliament relating to the custody of the insane, and was passed in 1744, forty-four years before it was adopted in this State. The impulses towards reform were however earlier felt in the mother

country, and were more active and persistent than in the colonies.

If we examine the current events in the history of lunacy reform in England we find that at the time this law was enacted, in 1744, there were the first faint indications of a popular recognition of the relations of the insane to the State. The condition of the insane was most deplorable. They were arrested without warrant and confined in private mad-houses without the possibility of escape. Their treatment was of the most cruel and barbarous character. No supervision whatever was exercised over either public or private institutions. The famous Bethlehem, or Bedlam Asylum, as it was popularly called, was the great institution of the period, and the condition of its inmates was beginning to attract popular attention. DeFoe had already described in scathing language the private mad-houses, and the methods of incarcerating the insane in them. The condition of the patients in Bedlam and in the mad-houses was from time to time made public, and excited much discussion. Hogarth sketched the appearance of the insane, in their cells, lying in the straw; while other artists figured the inmates undergoing various kinds of torture. But in spite of the efforts of a few philanthropists no further legislation was secured until 1774, when England took the first step in the direction which she has steadily pursued from that date, and which has placed her in the first rank of the civilized nations of the world in the care of the insane.

At the period of the enactment of the law of 1788, by the State of New York, there were neither public nor private asylums for the insane within her borders. There was, therefore, no agitation of the question of the care of the insane. The only insane recognized

were those who were furiously mad and dangerous to be at large. The Legislature sought to protect society against this class, and found in the English Vagrant Act, of 1744, nearly half a century earlier, the formula of law for effecting its object. There was nothing in the English Act of 1774 which was applicable to the condition of the insane in New York, for they were not in asylums, nor mad-houses, but were in private care or in the pauper establishment. Nothing seems to have occurred to change the status of the insane until the year 1791, when the New York hospital was opened for patients, and the first cases admitted are supposed to have been insane. This seems to have been the first provision in this State for the insane outside of the jails and the almshouse. The treatment of the insane in this hospital was little better than in the poor-houses and jails. Writers of that period still speak of the cells and chains of the maniacs. The attendants were but little above the common order of poor-house keepers, or jailers, and there was as yet but slight agitation of the question of the improvement of the condition of the insane. It was at this time that the famous York Retreat of England, under the management of the Society of Friends, began to attract attention. A new policy was adopted in this institution. The inmates were regarded as susceptible of control and good government by humane measures. The old system of restraint was abandoned, and moral influences substituted. The result surprised England. This asylum became a model of good order, freedom from excitement, and absence of the old and familiar forms of restraint. The value of good attendants was here recognized. Many patients entered the wards who had been chained for years in other asylums, but who were soon made tractable under the influence of

kind, intelligent and humane attendants. A visitor to the Retreat states that "They sometimes have patients brought to them frantic and in irons, whom they at once release, and by mild arguments and gentle acts reduce almost immediately to obedience and orderly behaviour." It is said by the historian that the experiment at York Retreat would have failed had not the superintendent succeeded in securing attendants who were kind and gentle, and willing to perform their duties in a humane spirit.

The fame of this institution spread throughout England, and into European States, and gradually its influence moulded the lunacy system of Great Britain. In time the reports of the Retreat began to penetrate this country and awaken a new sentiment in the minds of the more philanthropic. It was not, however, until 1806 that any improvement was made in the care of the insane, though it is doubtless true that there was more or less agitation of the subject during the interval.

That there was an increasing interest felt in the care of the insane in this State is seen in the resolution of the Governors of the New York Hospital, in 1806, to erect a new building for the insane owing to the defective accommodations of the old building for this class of inmates. They appealed to the Legislature for aid, and that body appropriated the necessary sum with the following preamble to the Act, which is interesting, as it gives expression to a very advanced opinion of the needs of the insane:

> It has become necessary, on account of the increasing number of patients in the hospital in the city of New York, to enlarge the same, by erecting additions thereto, for the more convenient accommodation of the sick and disabled, and particularly, to provide suitable apartments for the maniacs, adapted to the various forms and degrees of insanity.

This is the first public recognition in this State of the fact that there are various forms and degrees of insanity which require the classification of the insane, in suitable apartments.

The new building was in due time erected, and was called the "Lunatic Asylum." This asylum continued in active operation from 1808 to 1821, when the present Bloomingdale Asylum took its place. There are many evidences of the value of the experience gained in this institution, and of the influence which its management exerted upon the public mind. It led to the first effort of the State to make special provision for the insane poor, hitherto confined to poor-houses. This Act was passed in 1809, as follows:

> That it shall and may be lawful for the overseers of the poor of any city or town, by and with the consent of the common council of such city, or of two justices of the peace of the county in which such town shall be, whenever any poor person legally settled in such city or town, and maintained at the public charge, who was or who shall become lunatic or insane, to contract with the governors of the New York Hospital in the city of New York, for the maintenance and care of such lunatic on such terms as they may deem meet, and to transport such lunatic to the said hospital.

For thirty-four years this asylum, which in 1821 was removed and became the Bloomingdale Asylum, was the only institution in the State having the character of a public custodial institution for the insane. It was always under the best management, and the basis of its success has ever rested on the efficiency of its officers, and the high grade of its attendants.

For nearly a quarter of a century, viz.: from 1808 to 1827, this State presented the singular anomaly of confining its insane in jails, poor-houses, and a small asylum of a very high order of management. In the jails they were still treated as criminals, and were generally

chained, as directed by the law of 1788. In the poor-houses, or almshouses, the chronic insane congregated, and were subjected to every possible degree of cruelty and neglect. In the asylum of the New York Hospital they were treated in the most humane manner, by the best class of officers and attendants. Of the excellent management of this asylum there is much contemporary evidence, but no better testimony can be given than is furnished by one of the early superintendents in his annual report. He says of the asylum:

> The order and internal economy and government of the New York Lunatic Asylum have justly placed it in the highest rank among the best institutions of our country; and the most improved establishments of the kind in Europe do not afford a source of higher congratulation on the benefits they have afforded to the most afflicted of our race.

Referring to the past, he says:

> The period is not remote, when a variety of circumstances conspired to render the very name of a mad-house a subject of terror and dismay. The prevailing opinion of the friends of its unhappy tenants was, that they were placed within its walls, not as in a situation, where they might by lenity and kind treatment, be restored to the blessings of health and reason, but as in a place of safe keeping; disabled from injuring themselves and others; where, from the supposed nature of their disorder, they neither deserved nor would receive the compassion of their keepers, and where they would inevitably languish and die.

Of what an asylum should be he gives the following very enlightened opinion:

> Asylums for the insane ought no longer to be viewed as places of personal security merely, but the temporary abode of a class of fellow beings, having the strongest claims to our sympathy and regard; furnished with the means of comfort, amusement, and employment adapted to the circumstances of their condition and the nature of their disease.

Referring to the Bloomingdale Asylum, then in the process of erection, he suggested, "that while it is of

much importance that it be so constructed as to convey no idea but that of comfort, it may also admit of a classification of the patients during the day, according to their sex, condition of life, and various states of derangement, in separate apartments of convenient dimensions." He also recommended a "distinct building for the most raving and noisy, who should be constantly under the inspection of a faithful, humane and discreet attendant." "A convalescent," he adds, "should at all times be separated from the more insane." * * "The furious maniac * * ought at times to be released from his chain and his cell, to be led forth to the refreshing influence of an untainted air, and the liberty of such exercise as may promote so free and equal circulation." * * "When released," it is advised that "he should not associate with the deranged." * * "It is only by thus extending the freedom of the violent that we can ascertain the changes their malady may have undergone. Neglect in performing so imperative a duty is a negative act of unpardonable cruelty, which there are strong reasons to believe, has often doomed to immeasurable suffering many a wretched inmate of a lunatic asylum." He advises that in the new asylum two large apartments be appropriated for the sick of the two sexes, each having an attendant by night as well as day.

He gives the following reasons for these views: "With such a provision, the sufferer, in whose mind the light of reason had been long extinguished, might, during that gleam of intellect, which frequently attends the closing scene of life, be made to know that he is a human being meriting and receiving the compassion and kind offices of his fellows." The labor and amusement question he discusses as follows: "I would recommend that in all their recreations, whether of

labor, or skill, or amusement, they should be separated from each other, and classed, as far as circumstances will admit, with the sane, engaged in similar amusements and pursuits. It has been found that such employments and recreations as require the most bodily exertion, have been the most beneficial."

On restraint he held the following opinions:

The means of safekeeping by bars and bolts, and cords and chains, are abundant, and easily obtained; but it should be the supreme object of those who have assumed the supreme responsibility of governing the insane, to restore to their reason and to society the greatest possible number of these afflicted beings; and we have no hesitation in believing, that this will be most certainly accomplished by strict attention to a moral regimen. The greatest improvements in the treatment of madness have been of this nature; and the most approved physical agents of modern times were familiar to our remotest ancestors. With such views, the recovery of the deranged is not to be forgotten in the mazes of abstract research, nor in those wild speculations on the nature of the reasoning faculty, under the influence of which it is often difficult to determine where the greatest alienation exists, whether in the patient, or in him who has the care of him.

Finally, it is interesting to notice his opinions of the qualifications of attendants upon the insane:

Those appointed should be reasonable, humane, moral and religious, possessing stability and dignity of character; mild and gentle in their temper and deportment, but resolute in their purposes, and of great self-command; never attempting by ill-directed efforts of superior strength to subdue the unconscious violence of their charge; of just and sagacious observation, and endued with clear and unclouded minds; so compassionate and of such intelligence, as not only to take an interest in the unhappy lot of the objects of their trust, but to be able to assist them in the recovery of their reason. In their ordinary visits they should approach the insane with an air of gentleness and kindness, expressive of concern for their unhappy condition, a deportment which will not fail to augment their respect and confidence on occasions requiring a more stern and distant intercourse.

They should watch, with discriminating and unwearied attention, those favorable moments of drawing them from their hallucinations, their fantasies and wanderings, which frequently occur in the intermissions of many cases, both of madness and melancholy. The blunders of the ignorant and unskilful in the treatment of bodily disease, are generally of rapid effect, and may soon end in the death of their victim; but in the management of the insane, they are of slow, deep, and lasting consequence.

These remarkably clear statements on the management and construction of asylums for the insane, and of the proper qualifications of attendants, were published seventy years ago. They show that there were in New York, at that early day, men who had the most thoroughly correct views of the care and treatment of the insane, and of the proper qualification of attendants. It can not be doubted that these opinions had a wide dissemination among the leading citizens, many of whom were governors of the hospital. It is certain that the tone of public feeling towards the insane was now undergoing a marked change, for in 1827 the Legislature took the important step of passing an Act that "No lunatic shall be confined in any prison, gaol, or house of correction, or confined in the same room with any person charged with or convicted of any criminal offense." By this law the insane in this State were forever separated from the criminal classes. Thus one class of attendants on the insane, which had held sway for fifty years, were dismissed from the service.

But the reform did not end with this act of legislation. On the contrary, it assumed a more important phase. The more advanced members of the medical profession took the position that not only are the insane not criminals, but that they are sick persons who require hospital care for the purpose of recovery. This opinion gained ground, and finally became so prevalent that, in 1836, the State Medical Society

memorialized the Legislature on the subject, using the following language:

> The time has arrived when we are called upon to discharge the uncancelled obligations of religious, moral and social duty to that portion of our fellow-citizens, whose appeal to our sympathies, justice and humanity is the strongest claim which can, under any circumstances, be made by any portion of our population.

The memorial concluded by urging the Legislature to make provision for the erection of a proper asylum, for the support and medical treatment of the insane, with a view to their restoration to health, reason, their friends, and the community. The Legislature passed an Act establishing the State Lunatic Asylum at Utica. This asylum was completed so far as to be organized in 1842. By this Act the policy of the State became fixed in favor of regarding insanity as a disease which required prompt medical care and treatment. This reform was a vast improvement upon the past care of the acute insane. Every effort known to science was to be put forth to restore the acute insane to health. The asylum was organized under the ablest physician of this country, and the highest grade of attendants was secured. The value of that institution to the State in rescuing the acute insane from chronic insanity can not be estimated.

But important as was this new departure, it did not disturb the large population of chronic insane who were still under the care of the almshouse keepers, nor did it in any respect improve their condition. Investigations by the State a quarter of a century after the opening of the Utica Asylum showed that the condition of the insane in the poor-houses was most deplorable. They were treated in the same barbarous and cruel manner as in the earliest periods. Men and women were found chained to the place where they had remained

from youth to old age. Then began a new effort which culminated in the organization of one of the most valuable and important State charities in the world, the Willard Asylum. This institution was especially designed to remove the insane from the poor-houses, and prevent their accumulating in these county resorts. Although it did not effect completely that object, it did lead to a reform, even in the care of the insane in these primitive institutions. Public attention was now directed to them; the State began a system of inspections, and with the publicity which was thus given to their condition, the needed changes progressed rapidly. Better attendants were accorded the insane, better food and clothing were supplied; better accommodations were secured; restraint diminished, or ceased altogether. To-day there is not a poor-house in the State in which the insane have not comfortable quarters, good food and clothing, little or no restraint.

Standing as we now do, on the threshold of the centennial of this State, and estimating the future of the insane by the light of past reforms and improvements, the coming century is full of promise, and bright with hope and anticipation. Although the agitation for lunacy reform began in England, and was most intense in that country, yet the reforms which were from time to time effected in her lunacy laws, and in the management of her asylums, were practically adopted and applied in this State. The history of that agitation in this State, as well as in England, is the history of the social progress of the people. There is no more striking illustration of the refining and elevating influences which have gradually moulded the public conscience into forms which give expression to the higher sentiments of philanthropy, than the remarkable changes which have occurred in the relations of

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the State to the insane during the century of the existence of this commonwealth. One hundred years ago no one was recognized as sufficiently insane to require care or custody who was not furiously mad, and too dangerous to be at large; to-day insanity is recognized as a disease, having a great variety of expressions, and demanding treatment in its several stages by competent medical men. One hundred years ago the insane were arrested as common criminals, were incarcerated in jails, were tried by juries and were condemned to imprisonment with the same formality as the indicted and convicted felon; to-day no person can be lawfully declared insane, and be removed from his home, unless he is first examined by two physicians who have been approved by the court as competent examiners in lunacy, who must give the facts on which they base their opinions in a written certificate, verified under oath; nor can such person be held in custody on this certificate more than five days, unless it is approved and signed by a judge of a court of record within that period. One hundred years ago the insane, when duly convicted by a jury were incarcerated in cells and dungeons with criminals, and if necessary were chained; to-day the State of New York has provided for the insane residences, erected on the choicest available sites, and endowed them with every known convenience and appliance for their recovery and personal comfort. One hundred years ago cruelties and outrages in the personal treatment of the insane were of public notoriety, but they elicited no remonstrance, nor did they create a ripple of agitation; to-day the faintest rumor of unkind treatment of the insane, or even of restraint by the mildest means, arouses popular indignation as does no other tale of wrong or cruelty.

From this review it is apparent that the office of

attendant upon the insane has advanced in character and importance in proportion as our views of the nature of insanity have improved. While they were regarded as criminals the common jailer was the care-taker, when they were believed to be innocent but troublesome persons, they were placed in charge of the almshouse keeper; when it was established that they were sick persons, hospitals were erected for their care and treatment, competent physicians appointed to cure their maladies, and the highest class of nurses selected to attend them. The grade of care has, therefore, been steadily advancing until to-day a far better class of attendants are in charge of the insane than at any former period. The commencement of this reform in the selection of attendants, undoubtedly dates from the opening of the Utica Asylum. This being a curative hospital every condition favoring the highest grade of treatment was adopted. That the superintendents of that institution have always sought to maintain a thoroughly competent class of attendants, appears evident from the rules and regulations governing the conduct of its officers. Every other State asylum has, in turn, adopted the same high standard, and many of the large county asylums have followed the example of the parent institution. Thus the reform has spread until in every asylum in the State there is now a careful scrutiny of the qualifications of all applicants for the position of attendant. The following extract from the book of instruction of attendants of the State Lunatic Asylum, may now be regarded as the prevailing sentiment in reference to the character and obligations of attendants in all of our asylums:

This asylum has been erected at great expense by the State, that the insane may have a safe retreat, in the care of those who have learned the best mode of managing them, and where they may

have every chance of recovery. The first impulses of insanity are often met at home and amongst friends, by resistance and opposition. The apparent difference in the conduct and feelings of their friends, excites collision, arouses the passions, and awakens the prejudices of the victims of delusion. They now feel that those whom they loved, have turned against them—that their friends purposely thwart all their plans, oppose all their desires, and resist what they conceive to be their own best efforts to promote the happiness of both.

For these reasons it becomes desirable that they should be removed to the care of strangers, whose efforts to make them comfortable, they often acknowledge and appreciate more correctly. From strangers they will also submit to requirements without a murmur, which would excite the greatest hostility to friends.

In the various departments, all have daily much to do with the inmates of the asylum, and some devote their whole time to their care. It becomes all seriously to consider *how* this duty shall be performed; what discipline of feeling and what subjugation of temper there shall be that the "LAW OF KINDNESS" may be administered to its full extent, and in its proper spirit.

Every person employed in the asylum, in any capacity whatever, must perform the duties assigned *conscientiously*, and to the entire satisfaction of the managers, of the superintendent, and of those in immediate authority.

No individual is worthy of a place in such an institution who labors for wages only. DUTY, *a desire to improve the condition of all within the sphere of influence, to increase the happiness and lessen the sufferings of each and all the inmates, should be the governing motive of daily conduct.* It must never be forgotten that we are dealing with fellow creatures, who, being deprived of reason, are not responsible for their conduct. The regulating power of moral action is withheld from them; hence they are capricious, passionate, and often violent. They often also misjudge, and are led astray by perverted senses or by delusions of the understanding, which carry them far from the proprieties of rational conduct.

It is because they are unable to control themselves, and because they do not readily acquiesce in the directions of their friends, that many of these individuals are placed in the asylum. Here they are to have every comfort and every reasonable indulgence, which individually or collectively, will promote their best good. Here they look for sympathy and counsel, for assistance in their various troubles and perplexities. We should

enter into their feelings, and show our willingness to spend our time and strength to promote their happiness, and recovery to health.

To withhold what may reasonably be required is to do *them* injustice, and disregard *duty*. To treat them with neglect, or with unkind and hasty language, or in any way to tantalize them, or to recriminate or to return violent or abusive words, is to do them injury.

PERSUASION with a proper spirit, will generally be followed by a quiet acquiescence in all reasonable requirements. *Much depends upon the* MANNER *of intercourse with the insane.* We should never be cold and insensible to their wants—never hasty and impatient in our intercourse—never turn a deaf ear to their representations—never treat them with neglect, nor with feelings of superiority; but mingle with them in kindness, address them with respect, and we shall secure their confidence, which is necessary to their best care.

No stronger appeal could be made to the higher and better feelings, to impress a sense of moral obligations, than is embodied in this short admonition. It was the keynote to a reform which has elevated the status of attendants upon the insane to its present high position.

When I began my official inspection of the institutions for the insane in this State, I entertained no very friendly opinion or sentiments toward their management. And especially did I regard the attendants as a class of men and women probably much below the average of the nurses in hospitals with which I was connected. I should be recreant to my sense of justice did I not, in this place, and in this presence, bear willing and emphatic testimony to the generally good character of attendants in the State and metropolitan asylums. They form a corps of workers numbering about 1,000, who in intelligence, moral character and devotion to duty, are worthy of the confidence of the community. I have seen them in every capacity, and have tested them by every suitable method, night and

day, and I know of no class of employees who could have better sustained the scrutiny. It is true that there are individual exceptions, as must necessarily be the case in every profession or occupation, but as a body of men and women, engaged in a special calling, they are the peers of the best grade of hospital nurses and attendants.

As an example of the thoroughness with which attendants now perform their duties, I would state that during one year I examined the clothes, the person, and the bed of every so-called filthy patient in the asylums of this State, and found but one bed not wholly clean and in good condition.

My originally unfavorable opinion of attendants grew out of my unfamiliarity with the peculiarly responsible and difficult duties which they have to perform. And I think the public criticism of attendants would be greatly modified and mitigated if the nature of these duties were better understood. If we but consider the first and primary rule in asylum management, we can readily understand how a conscientious and careful attendant may have all his acts misconstrued especially by patients. The first and highest duty of the attendant is to maintain good order, and discipline. Good order is not more necessary to the comfort of the patients than to their recovery. Discipline in the orderly attendance to duties, is the first lesson to impress upon the insane. And yet, in the very nature of insanity, we find the most violent antagonism to both order and discipline. The early popular definition of insanity in this State, as we have seen, was "disordered in his senses." The first recognizable insane act is usually that of disorder. Then follows a disposition to wander and great intolerance of restraints of any and all kinds, and from every source. Friends now fail to

exert any influence over them, or if they attempt to do so the insane violently resist, and conceive the most intense hatred of their best and nearest relatives. No one but an attendant can fully realize the difficulty of controlling the morbid impulses of such a patient when first introduced upon a ward. He has thus far gratified every wish or purpose, and thereby his will to do as he pleases has gained strength and determination. Every effort is employed to induce him to comply with the rules of the asylum, such as to go to the table when the bell rings; to go to bed and rise at a given hour; to make his own bed; to wash before meals. All these rules he refuses to comply with, resorting to the most violent demonstrations towards those who attempt to compel him to obey. How shall such a man be brought to obedience—perhaps the very first step towards recovery? Reasoning does not influence him; to allow him to disobey only intensifies his obstinacy. The only alternative now recognized is manual force. He is overcome by superior strength, and the first link in the chain of disorderly thoughts and feelings is broken. The attendants have done their duty according to the manual. They have done their duty well and faithfully, according to the rules and regulations of asylums, and have not abused their trusts. But patients in their insane state very naturally construe these efforts as gross forms of abuse. I have many a time seen attendants lift paralytics from their filthy beds, and carry them to the bath tub, as gently as their struggles would permit, while these patients would call on me to witness the cruelties to which they were subjected. The same scene is often repeated when attempts are made to induce patients to eat, to walk out, to make their beds.

It may, I think, be stated that, in the nature of the case, no institution where the insane are held in custody,

has ever been, nor perhaps ever will be, popular with the insane. There are many who will leave it restored to their right minds, profoundly grateful for the care and attention which they have received; but there is another larger number who will leave it unimproved, and who will never fail to entertain the most hostile feelings towards all engaged in its management. There are asylums in this State where all the ministrations are inspired by the purest and most self-sacrificing religious sentiment. In these institutions the superintendent, attendants, and subordinates are all selected with reference to their special fitness for their duties. The immediate attendants upon the patients are women of culture and refinement, and life-long devotion to unrequited charity. And yet, in these asylums, I have listened to tales of cruelty, neglect, and improper treatment of the most aggravating description. But many a recovering patient has informed me that the first step in his restoration was the act of being brought to orderly habits in the daily routine of ward life.

I do not wish to be understood as asserting or implying that attendants never abuse patients. Unfortunately that is too true as the dismissals from asylum service prove. Nor do I wish to be understood as in any sense apologizing for cruelties to the insane. On the contrary all such offenses when proven should be punishable as assaults upon the person; I would only ask that common justice be meted out to those who perform their duties, often most disagreeable, conscientiously, and in accordance with rules which they have promised faithfully to obey. If we consider that in the arrangements of asylums an attendant must always be on the ward, and always on call, that many of their duties are of the most menial character, that they are constantly subjected to indignities and often assaults, that

they are largely debarred from social privileges, we gain but a faint impression of the daily life of an attendant. In one of my reports I attempted to give the daily routine of duties of attendants, from their rising to their retiring. A gentleman of high standing, who had hitherto been prejudiced against attendants, expressed his astonishment, after its perusal, that men and women could be found who would perform such duties at any price, and especially at the prices now paid. It is gratifying to know that this asylum is about to grade the wages of attendants, and thus to have a much more equitable system of payments. It is by this means that the best service can be secured.

Great as has been the improvement in the character of attendants, and it has been remarkable, there has always been apparent an absence of that special training which is essential to the full development of the qualifications for their special duties. Aptitude for any department of work is necessary to success, but without special training aptitude avails little in fields where skilled labor is required. In the care of the sick aptitude for nursing has hitherto been regarded as the only qualification. But within ten years to aptitude has been added training by a systematic course of instruction, and the result is that the old grade of nurses have been completely driven from the field. And if the nurse of one sick of a physical disease, is so much improved by training, how infinitely more important is it that those who are to minister to a mind diseased, should have special training. The power which an apt and trained attendant exerts over the insane is oftentimes marvelous. In many instances I have seen skilled attendants remove the restraint, from violent patients, who had resisted every known measure of securing good behavior, and from the first perfectly control them. I can not, therefore, too much

commend this first effort to thoroughly prepare attendants for their duties. In fact I have no doubt that within a decade, no attendants will be employed in the State asylums of this State, who have not their certificates of graduation from a Training School. When that period arrives we shall doubtless witness improvements in the management of the insane which will relieve asylums of that suspicion and prejudice, on the part of the public, now so prevalent.

We may, I think, divide the care of the insane in this State, during the century, into three periods. The first period was that of *mechanical force*, when the jailer-attendants enforced obedience by chain and scourge. But the jailer-attendant with chain and scourge has long since passed into merited oblivion. The second period was that of *manual force*. We are passing through that phase of evolution now, and it has until recently seemed the very highest degree of development attainable. The amiable and able Dr. Connolly, a powerful advocate of the abolition of mechanical restraint in England, as strongly advocated manual force. The struggles of an obstinate patient with his attendants, and their final mastery over him, was regarded by this great alienist as in the highest sense curative. But there are striking evidences that a new era is at hand, the third of the series. This period will be that of *mental force*, or the power which a trained and skilled attendant will exercise over the disordered senses, whether by soft words and gentle persuasion, or by the imperious tones of a master. In the organization of this school, and in the graduation of this class, we witness, not only the dawn of that new period, but the fulfilment of its promise.

For the graduating class I have only words of praise and encouragement. From the preceding review it is apparent that your occupation has gradually developed

from humble beginnings to the rank of an honorable and useful profession. You are no longer called upon to act the part of a custodian of a criminal, but to be the skilful, intelligent, gentle guide of an erring mind. Instead of restraining the wandering feet with chains, and the violent hands with manacles, your office will be to direct those feet to paths of order and discipline, and those hands to useful labor. Your greatest measure of success will not be won by physical prowess, but by the triumph of a sound, healthy, and well ordered mind, over the shattered forces of a mind diseased. You are the pioneers in this great reform, and on your conduct and character its success will largely depend. Your position and your future progress will be closely scrutinized, both by friends and foes. If success crown your efforts, your reward will be great. You will stand as the representatives of one of the most beneficent reforms in the history of the care of the insane.

Mr. President: The inauguration of this Training School for Attendants will, I believe, more signally and effectually establish the reputation, in the distant future, of the Buffalo State Asylum for the Insane, than any other act or event in its history. Already we hear from many asylums the notes of preparation to follow your example. To be the pioneer of a far-reaching reform, not only in the original conception of its underlying principles, but in the organization and perfection of the system or scheme by which its benefits are to be secured, is the highest honor to which man can attain. It is, then, with no ordinary pleasure, and with a profound sense of duty, that in this public capacity, and on this auspicious occasion, I acknowledge the obligations of the State, of every citizen interested in the best care and treatment of the insane, and of the insane themselves, to the founders and promoters of this school.

MEMORIZING AS AN EXERCISE FOR THE INSANE.

BY JOHN W. GIVENS, M. D.,

First Assistant Physician, Oregon State Insane Asylum, Salem, Oregon.

The daily work of the physician in an insane asylum leads him to turn over and over again his resources for the treatment of his patients, hoping to learn of some new factor or of some new combination of old factors which will give him better practical results than he is now obtaining.

The supply to the organism of wholesome food, air and drink, the maintenance of the physiological functions of digestion, assimilation and excretion, the regulation of physical exercise, rest and sleep, and the various drugs which can favorably affect structure or function, are constantly engaging his attention. But do not all of the educational factors which can be used to control the mental phenomena of attention, emotion, thought, purpose and expression, deserve equally critical examination and faithful use? This leads us into a realm where there is so much of the occult and intangible that we are in great danger of being led away from the practical, and returning with empty hands from fruitless speculations. And without theorizing further I will relate something of the little I have attempted in controlling and directing mental phenomena by having patients apply themselves to memorizing.

I have thus far used the method chiefly with female patients. I endeavor to get the promise of the patient that she will make an effort with me to so control and

deport herself as to be considered well enough to go home.

This personal interest on the part of the patient is a *sine quá non* and almost always requires much tact and perseverance on the part of the physician and nurse to arouse and sustain it. Often the patient can not be brought to make the effort or continue it when made.

The promise when made is usually in an incoherent and noisy or depressed and listless manner, but this is, of course, passed over and the patient set to work under the supervision, and with the help, of the nurse.

I select easy prose compositions that are purely narrative or descriptive, of simple, ordinary things within easy range of the patient's understanding, and on subjects in which she has no special interest other than that afforded by pleasing description or fascinating narrative. Of this composition I have the patient try to commit to memory a dozen or more words during the forenoon and recite them to me the next morning on my daily round, increasing the lesson from day to day as I find them able to commit more.

I request them to study only in the forenoon, and, if possible, engage in some physical exercise in the afternoon. In several cases, I have been led to believe that this mental exercise has been a useful factor in restoring the mental phenomena to a normal state. The following cases are reported to illustrate the practical use of this method.

Mrs. ——— was admitted to the Oregon State Insane Asylum, June, 1885. She is 23 years of age. Her mother died when the patient was thirteen, and the care of the family early devolved upon her.

Her father's second marriage resulted unhappily for her and this, added to her unusally early responsibility, developed a rather melancholy turn of mind. Aside from this, and a physique somewhat below the average in size and vigor, she developed

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Her father's second marriage resulted unhappily for her and this, added to her unusally early responsibility, developed a rather melancholy turn of mind. Aside from this, and a physique somewhat below the average in size and vigor, she developed

nothing unusual. Has been happily married for three years. Two and one-half years after marriage she gave birth to a healthy child. She passed through parturition well in every way and nursed her child.

About five months after the birth of her child she became much depressed, and this depression passed rapidly into a fixed delusion that she had committed the unpardonable sin. Under this delusion she gave herself up to grief and neglected her household duties.

During this time her appetite was poor, bowels constipated and she was sleepless. One week before her admission to the asylum she killed her child by cutting its throat with a razor, believing that it would grow up like herself and would be better off dead.

Upon her admission to the asylum she was thin, feeble and haggard, appetite poor, bowels constipated. Heart's action slow and feeble; sleep short and disturbed. She was free from hallucinations and illusions. Was greatly depressed, crying most of the time, and said she had committed the unpardonable sin. She was put on as liberal a diet of milk, eggs, meat, plain bread, vegetables and fruit as she would take.

A mild laxative of aloes was prescribed before meals and a one-sixtieth grain of arsenic after meals. She soon began to improve physically, but she remained inconsolable over her lost estate. She was induced to make an effort to memorize short compositions every day except Sunday.

It was difficult to get her started, and still more difficult to keep her at it, as she found great difficulty in remembering anything at first, but in her continued efforts she thought less and less of her delusion, spent less of her time in crying and continued to improve physically.

She was advised to let the educated minds of theologians unravel the mystery of the unpardonable sin and that her duty was to lead a quiet, useful life. She seemed to accept this as reasonable and lent her energies with renewed vigor to the daily concerns of life, and spent the afternoons in the sewing-room. She menstruated, slept, ate and digested normally. She improved in her physical appearance, her mind regained its normal state and she was discharged, December, 1885.

March 1, 1886, she writes that she continues well except a tendency to constipation. Her letter indicates a good state of mental health.

Case 2. Mrs.———, aged 50 years, was admitted to the Oregon State Insane Asylum in July, 1885. She is the wife of a minister who has had a checkered career of success and failure. She has borne several children and although never very strong has had fair physical health until three years ago. Since then she has been ailing more or less with debility, sleeplessness, etc.

This general ill-health was thought by her family physician to be due to changes incident to the menopause. She has not menstruated for four years. A half brother has been insane. She had led an exemplary life, being a consistent member of the Methodist church. Lately she had heard much of the preaching of the Adventists, who, it seems, teach a doctrine somewhat at variance with that of the Methodists. This worry over a conflict in religious teachings seems to have been the exciting mental cause of her insanity.

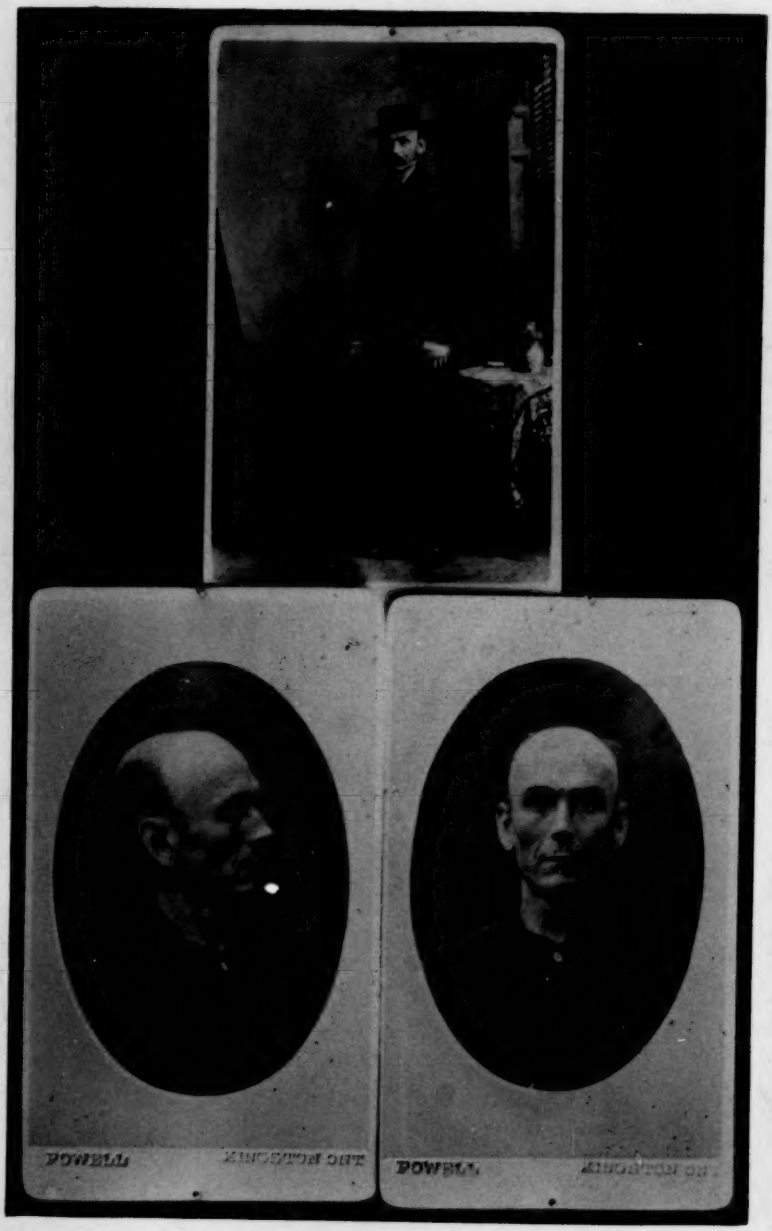
For a few weeks before her admission to the asylum, she has been much depressed, has had fears of impending evil, depressing delusions, threatened suicide and neglected her everyday work. Upon her admission to the asylum she was in a state of great agitation, half crying, wringing her hands and giving incoherent expression to the belief that she and her family were ruined because of her neglect to give them proper religious instruction. She was thin and feeble, appetite poor, bowels constipated, sleep poor. The thoracic and abdominal organs offered no physical signs of disease. She was put on a diet of meat, milk, bread and vegetables. A mild laxative was prescribed and this with an occasional dose of bromide of potassium was the only drug used.

For several days she passed her time in crying and fretting; neglected the care of her person and gave but little attention to her surroundings and refused employment. Her evident belief that her state had been above the average seemed to lend an increased tinge of melancholy to her threatened abasement. Upon being asked if she could read, she expressed astonished indignation at such a question, but answered that she could. She consented to memorize a few words and recite them to me the next morning. The nurse had great difficulty in keeping her at the task, and she would frequently stop and walk about, pulling her hair and saying it was no use. The next morning she recited at the composition and was told that she did very well considering her condition. She was kept at memorizing from day to day and urged to more exactness rather than increase in amount committed.

The importance of exactness I considered great, as it tends to correct the rapid, incoherent operation of the insane mind. She became interested in the effort, grew calmer, gained self-control, her appetite and sleep improved, and she gained in health and strength. The success of her effort was praised, and her correctable mistakes treated with seriousness. Under this treatment she rapidly improved, her delusions faded away and she was discharged in November, 1885, as well.

So far as a limited trial indicates anything, this exercise seems especially useful in the emotional forms of insanity. We might expect this from the well-known fact that the continued indulgence of the emotions brings a rapid failure and possibly a perversion of the intellectual and volitional powers of the mind.

It must be with mental as with all other vital phenomena that the abnormal is only relatively and not wholly different from the normal, and that both are controllable to a great degree by the same influences. And it seems reasonable to hope that we shall find more and more, in the educational forces which are used with such wonderfully transforming effect upon the phenomena of the sane mind, great helps in treating the insane mind.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CLINICAL CASES.

THE CASE OF WILLIAM B.—MORAL IMBECILITY.

BY C. K. CLARKE, M. D.,
Medical Superintendent, Asylum for Insane, Kingston, Ontario.

In the *Journal of Mental Science* for October, 1885, there appeared a paper by Dr. D. Hack Tuke on the case of William B. Being in a position to supplement much of the history detailed by Dr. Tuke, no excuse need be offered for this article, and as the case to be reported is of undoubted interest, it is important that it should be recorded. For the greater part of the information regarding B's childhood and life up to the time he was sent to the penitentiary, I am indebted to my friend, Dr. A. C. Bowerman, of Picton, Ont. Dr. Bowerman has put himself to a great deal of trouble, and it is owing to his kindness and energy that so minute an account of B's life can be given. Without this early history, the case would have been comparatively valueless, as it would have been impossible to state positively whether B. should be classed as an imbecile, or a subject of mania, and the case could not be referred to as one of any particular type. The story of B's childhood is made up to a great extent from Dr. Bowerman's interesting letters.

William B. was born in Swansea, Wales, in 1838, being the third son of a family of five. While he was a mere child, his mother died, and shortly afterwards his father married again, and emigrated to Canada. When my informant (W. B's stepmother) first became acquainted with William, he was extremely feeble both in mind and body; and could walk with difficulty, his

legs being weak, requiring artificial support to the ankles and knees. By great care and abundant nursing the child grew more vigorous and gained the use of his limbs; at the same time he began to be mischievous and destructive. In mental capacity he gained more slowly, and was never able to acquire more than the rudiments of an education. Beyond reading in the Psalms he made no progress—required coaxing and bribing to stimulate him to efforts of learning, and was greatly deficient in ordinary intelligence. W. B. was particularly an object of solicitous regard on the part of the foster mother, who strove to improve him physically, while the father usurped the functions of the common school, and taught all his children at home. William never attended school in Canada. In the capacity of instructor the father was abundantly competent, being a gentleman of the olden type; highly educated, refined, genial and accomplished; but with all these qualifications, which made him an ornament to the primitive society in which he lived, he unfortunately possessed an extremely nervous constitution that was doubtless inwardly assailed by the constant recollection of social banishment. His nervousness took form in his exhibiting unnecessary fears concerning his children; he was restless and fidgety, and incessantly complained of ailments that had no existence except in imagination; while the restrictions he imposed upon his family were in many respects ridiculous and absurd. He was a thoroughly consistent and religious man, temperate, and a model of uprightness and honor. Never having been accustomed to manual labor, the spirit of this once affluent man was subdued; he grew fretful and dicouraged; temporal affairs became more and more complicated, and as poverty loomed up on one side, the years brought

numerous additions to his family and a multiplication of necessities upon the other.

Resuming now the history of W. B., it is said that up to his twelfth year he showed none of the blood-thirsty traits that have since so unfortunately distinguished him. Perhaps it was opportunity only he lacked—for as to cats and dogs none were allowed about the premises, owing to the father's hysterical antipathy to both these quadrupeds. When about twelve years of age W. B. began to develop the peculiar tendencies that have since marked him with an individuality at once unenviable and unique. That he was conscious, to a certain extent at least, of the gravity of his first recorded misdmeanour, is evident from the fact that it was perpetrated under the cover of darkness. That he was crafty and secretive is likewise seen in the fact of his concealing all traces of his guilt, and betraying no outward sign by which he could be suspected.

That the objects of his attention were not the victims of an uncontrollable frenzy, is plainly apparent in the singular moderation of his slaughter; by which means he was able to renew more frequently his favorite pastime.

A neighbor's fowls were the first living creatures operated on. A few were killed at irregular intervals, and the bodies thrust into a wood pile. When one slaughter had become in a measure forgotten, B. would renew the offence by another attack on the poultry. Physical improvement now enlarged the domain that in a criminal point of view soon became his own. B. himself tells me that long before he killed the neighbor's poultry he had stabbed a horse and tortured other animals; in fact he can not recollect the time he was free from the desire to torture and kill.

When about twelve years of age, he went one day with his younger half-brother for a ramble in a neighboring field, beyond a thicket of willows. Having provided himself with a table knife, he cut some lithe red willows, then by cutting the buttons from the child's clothes, stripped him and beat him most cruelly with the rods. The little fellow's cries brought assistance, and liberated him from the brother, who now confessed to having destroyed the neighbor's fowls. From this time forward, however, regardless of precautions, B. entered on a succession of cruelties that have made his name a common terror in the place of his early abode. For some fancied insult he cut the throat of a neighbor's horse, and hid the weapon, a draw-knife, under a small bridge near his father's house. A year in the county gaol expiated this offence, but did not improve the morals of the boy. He forced open a chest belonging to his father, stole some money and decamped; was arrested and committed to gaol, from which he was soon liberated. In one night he mutilated three horses that were running at large in the adjoining fields. Although suspected at the time, he was not committed for this crime. Soon after, however, he made an ineffectual attempt to strangle his brother Fred, and nearly succeeded in smothering his infant sister, for which latter act he received a term of years in the Kingston Penitentiary. At the expiration of his time (seven years) he found his way into the United States Cavalry Service (December, 1864,) from which he deserted, and having cruelly driven his horse into an inextricable mire, made his way homeward, and eventually reached Canada in an exhausted condition. Great vigilance was now used to prevent further depredations, and a constant supervision was exercised by the family, over all his actions. He was in vain

entreated to work in the garden, but would sit for hours on the ground chewing apples and tobacco.

It was well understood that W. B. had an insatiable penchant for blood; if his father suggested a fowl for dinner W. B. was instantly on the alert to perform the fascinating operation of killing it. His proclivities were known and dreaded; cautions were exchanged to make no allusions in his presence, even to the killing of a fowl. If such an allusion were made before him the effect was instantly noticeable in B's countenance. He became agitated, restless, and assumed a peculiar expression of guiltiness that soon became a note of warning to the parents to renew their watchfulness. One evening a number of neighbors were engaged paring apples at the house of Mr. B., and some one of the company accidentally cut his finger. Instantly the stepmother noticed the peculiar signal in W. B's face, and cautioned the family to be on the alert. Regardless of cautions and watchfulness, the astute W. B. secured a carving knife and steel, and made off to a neighboring barn where he stole a horse, led it away to the woods, and so mutilated it that it died. From the scene of this deed he proceeded to a thick wood, where on an unfrequented road he next morning surprised a young girl, whom he criminally assaulted. Coming home stealthily the next night he put the knife and steel into the pantry window, but was heard, and the door was opened, so he came in and went to bed, where he remained until officers arrived and arrested him. He made no effort to escape and seemed quite unconcerned for himself. For the assault he was sentenced to death; but sentence being commuted he was sent to penitentiary for life. He came to Rockwood Criminal Asylum in February, 1870, and was transferred to the Penitentiary Criminal Asylum in

June, 1877. In June, 1878, he was pardoned for GOOD CONDUCT and set at liberty. His first act was to visit Rockwood Asylum, and from this place he proceeded towards his home. The old love for innocent blood overpowered him before he had gone far on his journey, and he attempted the capture of two horses in a pasture. Although he succeeded in attaching ropes to the animals he was not able, for some unknown reason, to carry out his plans. He then went to a stable on the roadside, secured a horse and led the animal some distance, tied it to a telegraph pole, and mutilated the poor creature in a shocking manner. When found, the horse was alive, but was a terrible object; its tongue was cut nearly out, its neck was gashed for twelve inches, the trachea cut through, the abdomen punctured, and the flank laid open. B. was captured and committed to the gaol as a dangerous lunatic, and eventually admitted to the Kingston Asylum. Before referring to the asylum records of this unfortunate man, it will be well to detail other instances of his depravity.

While a prisoner in the county gaol he selected a negro as his companion, and during the day the two prisoners had ample opportunities for conversing with each other. It eventually leaked out that these two had developed a scheme to attack and violate B's stepmother, when she came to the gaol with dainties for her son. Of course it would have been impossible for such an attack to succeed, but there is not the least doubt it would have been attempted had opportunity presented. During his stay in the penitentiary, B. amused himself by snaring the warden's poultry in an artful manner, and when transferred to the Rockwood Asylum he found abundant material for his evil purposes. Shortly after his admission to

the asylum an attendant missed a favorite terrier. Being asked if he knew anything about it, B. replied he had seen a patient take the dog into the closet, and in all probability it would be found in a bucket. The animal was in the place mentioned, and terribly mutilated, and B. then acknowledged himself guilty. A favorite cat was also missed and found beneath B's mattress, with its throat cut and body split from throat to tail; a second cat was similarly mutilated, and a third had its legs broken and throat cut. While passing a cage of doves he quickly thrust his hands between the bars and in a moment killed a bird. While an inmate of Rockwood Asylum, he on one occasion obtained possession of a shoemaker's knife and attempted to castrate a harmless imbecile; in fact he had nearly completed the operation when discovered by the attendants. On another occasion he enticed an idiot into a small room, and by means of a strap proceeded to strangle the poor fellow. The attendants heard the noise made by the patient choking, and went to his assistance just in time to save his life. B. appears to have appreciated this little incident very thoroughly, and the strap afterwards became a very important instrument in his armamentarium. Shortly after this, B. concealed a helpless patient beneath a heap of rubbish in the basement, and evidently intended to torture the victim, but fortunately for the patient, the plan was discovered. After B's last admission to Kingston Asylum, which had now ceased to be an institution for criminals, he appears to have conducted himself very well until 1881, although several mysterious and unpleasant occurrences were attributed to his authorship. In July, 1881, an opportunity to gratify his morbid passion presented itself, and from the late Dr. Metcalf's records I have gleaned the following notes:

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1st July, 1881.—Last night on my return from the city I was summoned by Dr. Montgomery to see Wm. McD., an epileptic in No. 6 ward. The man was found to be suffering from several wounds in the abdomen. Dr. Montgomery said the injuries had been discovered by the attendant when he was putting the patient to bed. When I saw the patient he was asleep, and as Dr. M. had dressed the wounds we did not disturb McD. Suspicion at once rested on B. who, at the time of my visit, was in the city with other patients witnessing a display of fireworks. The injured patient was too stupid to give any account of his assailant, but the affair looked so much like what B. would be likely to do, that there was no doubt in my mind about it.

Dr. Metcalf often spoke of the air of surprise B. assumed when he came in and found blood in McD's room, and when accused of having committed the crime he was the picture of injured innocence. To continue Dr. Metcalf's notes:

As soon as the patients returned I accused B. of the deed, but he stoutly denied all knowledge of it. I felt so satisfied of his guilt, that I ordered him to be undressed in my presence, and as a result of the examination we found a two-bladed pocket knife, a yard of new bed-cord, a piece of twine, a strap and a large screw eye. I also searched his bed-room and bedding, but found nothing there. B. stated that he got the knife from another patient two months ago.

July 2d, 1881.—This morning I examined the injured patient, and found a transverse punctured wound, about half an inch long, immediately below the umbilicus and extending into the cavity of the abdomen. It was a recent wound, and when Dr. Montgomery first saw it, the omentum was protruding. On different parts of the abdomen were several punctures in groups of three, and these were evidently made by the prongs of a fork. In addition to these were other oval or circular marks, as if a fold of the integument had been taken up and bitten. This morning I examined the knife blade and found several stains on it. When examined under the microscope these proved to be blood stains. After attending to McD's wounds I visited B's room, and told him that blood stains had been found on the knife, and it would be well for him to make a clean breast of the whole affair. After a moment's hesitation, he confessed that the day before, when the

attendants were not watching him, he got McD. into a bed-room and there injured him. He denied that he used the knife, and insisted that the wounds were inflicted by a fork he had smuggled from the dining-room the night before, and returned again in the morning. I am still of the opinion the wound was made with the knife, for it corresponds so closely with the width of the knife blade, and has such sharp cut edges. I questioned the attendants who were on duty yesterday, and they assert positively that none of the knives or forks were missing after dinner (the only meal when forks are used), as they were counted as usual and found correct in number. Attendant Mooney says that B's room was searched only a few days ago, but nothing was found—however, I believe his clothing was overlooked. B. says he wore the knife beneath his shirt suspended in a leather bag, and such a bag was taken from his neck.

July 4th, 1881.—I had another interview with B. this morning, and obtained from him the following information regarding the injuries inflicted upon McD. B. opened the subject himself by remarking it had been said he bought the knife in the city, when he had been there in charge of an attendant, but he assured me this was not so. He said he felt his guilt keenly, and when asked *why* he committed the crime, replied: "Well, there are times when I am impelled to do such things, and I have not the power to resist, but after the deed is done I am sorry for it." I asked how McD's injuries were inflicted, and he replied, "with the fork." I remarked that I did not understand how he could make such a wound with a fork, but he insisted that the fork was the weapon used, and that it went in above the prongs in one place, but not so far in others. I then asked him how the oval marks were made, and he said, "With my teeth." He also stated that the injured patient made no outcry. In reply to a question about the blood stains on the knife, he said he was ashamed to tell me about that, but finally explained that he had caught a little bird in the airing court, and killed it with the knife.

For a year after this B. behaved remarkably well, but on the 18th August, 1882, he again got into trouble. He was allowed to go to the city in charge of a young attendant, who carelessly permitted him to walk alone for a short distance. B. told the story of his elopement as follows:

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When I left the attendant I sauntered on towards the asylum quite leisurely, and expected the attendant to overtake me. At length the Asylum avenue was reached. The thought of escaping did not enter my mind until coming down the avenue. When I saw the asylum and considered that the probabilities were, I should have to stay there for the rest of my life, I determined to elope. Knowing how frail I was in body, it appeared advisable to steal a horse, and thus distance any pursuer. The stable near the main asylum was locked, so I crossed to the farm buildings and succeeded in getting the butcher's horse. After taking down several fences I gained the lake shore road, and attempted to mount the horse, but tumbled off before gaining a seat. I was completely discouraged by these attempts at riding, and soon gave up all idea of mounting the horse, but did not dare to return the beast for fear of recapture, so led it along, hoping to be able to return it when I reached home. When near Cataraqui Bridge, a man accosted me, and seemed to be suspicious about the ownership of the horse. I told him it belonged to a man named John Price. We walked together, but a cold shiver was running over me all the time for fear he was a detective and would arrest me. We parted, and I walked on leading the horse. When two or three miles on the road, I heard a buggy coming in my direction, thought it might be from the asylum, and so proceeded to tie the horse between two trees in such a position that the people could not fail to find it. By the time I had the horse tied up the attendants had arrived, and I attempted to escape, but was captured.

The cock-and-bull elements of this story were very apparent, but it required an endless amount of questioning to get at the truth. Eventually B. admitted, that had he been left to his own devices it was more than probable the horse would have been mutilated before morning.

Some of the incidents of the elopement were correct as detailed by B., but circumstantial evidence went to show that the horse was taken for a very different purpose than B. would have us believe. Although there was plenty of harness in the stable, the horse was taken with nothing but a halter on it, and when found

was tied between two trees in a very suggestive manner. B. evidently had no idea the attendants were near, and when they came up to him, he was so taken by surprise that he made but a clumsy effort to escape. Undoubtedly he was preparing to mutilate the animal, and the attendants had not arrived a moment too soon.

After this the patient was, if possible, kept under closer surveillance than ever. During 1883 and 1884, he behaved remarkably well, and appeared to be trying to "do better," and was very industrious. In July, 1884, he was allowed out of an attendant's sight and immediately got into serious trouble. Instructions of the most rigid character were now issued in regard to the patient. On August 20, 1884, a pic-nic was given in the asylum grounds and B. was allowed to be present. He was carefully watched, as every attendant knew that the man was not to be left alone for a moment. Suddenly a patient made an attempt to elope, and during the excitement B. quietly slipped off. He could not have had a minute's start of the attendants, but it was enough, as the sequel proved. He succeeded in making his way to a lonely road and chanced to meet a little girl thirteen years of age. The following newspaper extract details very faithfully what occurred:

> The girl was returning from Mr. J's when she met B. below the show grounds. He accosted her and asked her where she was going. She ceased singing a salvation song and told her intentions. He asked her to go with him but she declined. Then he grabbed her, caught her by the throat and dragged her over the fence. He carried her over a ploughed field, threw her to the ground and attempted an assault. He covered her mouth so that she could not scream.

Fortunately B. was discovered before he had accomplished his purpose, and the unfortunate girl rescued. B. did not attempt to escape, and just as the affair ended

the asylum attendants appeared upon the scene. The patient had not been gone from the institution an hour before he had yielded to temptation. When brought back he was completely demoralized, and when searched was found to have in his possession an awl and strap. He gave a very connected account of his elopement and attempt at rape, and said at first his intention was to escape from confinement, but when he saw the girl he could not resist the impulse to assault her. He told me he had been very much unsettled ever since getting into trouble the month before. On the 21st August, 1884, I had a long interview with B., and at that time he was greatly agitated and implored me to do one thing for him. I asked him what he wished me to do and he replied, "for God's sake Doctor save me from the rope." I told him he would be tried for the crime and probably punished. He said, "they will never punish me as I will do away with myself." On the 21st August, B. was taken into custody and seemed but little disturbed when arrested. After the crime had been committed, and before his arrest, he slept but little at night. In court he was very nervous and his fingers twitched visibly as he sat toying with his hat and boots. He listened attentively to the proceedings, and when asked to plead, said "not guilty," and elected to be tried by jury. A month later he was tried. The account of the trial is copied from the *Daily News.*

B., the alleged lunatic who escaped from the asylum and committed an indecent assault recently, was found guilty of attempting to commit rape. When the judge asked him if he had anything to say he replied: "Not that I know of, my lord." The judge then said that owing to circumstances, he would be lenient, and then sentenced him to six months in gaol at hard labor. When B. heard the sentence he brightened up and hurriedly asked: "Will that end my punishment, my lord"? That will end your punishment; at the expiration of the time you will be discharged, said the

judge. "Thank you, my lord," said B. B. will not have to go back to the asylum at the end of six months, so he is now in a better position than he was before he committed the crime. The general opinion was that he was not insane.

Of course at the expiration of the sentence an information was laid against B. and he was detained in the gaol upon the ground of insanity, and is still there awaiting admission to this asylum.

Of the remarkable nature of the trial I shall have something to say further on.

Such is the history of this notorious criminal, and although many incidents have been omitted, still the list is long enough to show the remarkable character of the wretched man. The first point that will suggest itself to the reader will be one in regard to the apparent want of supervision exercised by the asylum authorities over B., and one might almost imagine the criminal had been encouraged in his bloodthirsty career. After I had presented the case for the defence, it will be seen how impossible it was to care for such a man in an ordinary asylum, and it will not be difficult to feel a little sympathy for those who had to look after the patient.

From the history of the crimes committed, one would readily imagine B. the opposite of what he really is in personal appearance and manner. He is above the average height, has a bright face, and is particularly neat as regards his personal appearance. The photographs do not accord him justice. Two of them were taken when B. was in gaol, clean shaved and dressed in prison garb. When in the asylum he was somewhat of a dandy, and would never be taken for a patient by a stranger.

It must be confessed B. was liked by every one in the institution, as he was always pleasant, industrious and

apparently anxious to "do better." In the wards he was as useful as an attendant, and sometimes one would think he really was possessed of an unlimited amount of affection for those over him. Whether or not this affection was genuine, the attendants generally believed in it, and invariably came to grief as a result of their misplaced confidence. To know B. was to understand how easily this feeling of confidence could be engendered, and to realize that this mild-mannered fellow had been the perpetrator of an endless number of crimes, is almost impossible.

When first acquainted with the man, one is almost certain to overlook the imperfections that eventually manifest themselves, and the impression is created that B. has a mind equal, if not superior, to that of the average of his class in life. His memory is wonderfully good. He talks intelligently on most subjects, is a ready talker, and has an attractive manner. As might be expected, he is a great expounder of religious truths, and could he practice what he preaches, this tale would not be written. In spite of all the strong points just noted, B. is as a matter of fact little more than a child (a very bad one) in many respects, and any one knowing his weak points, can easily induce him to exhibit the deficiencies. He is cunning enough to hide his imperfections before the ordinary observer, and is really clever in "sizing" his companions. He is a bundle of inconsistencies, and in spite of all his cunning, he is as credulous as a child. The last story told him is the one believed, and nothing in the world of fiction is too marvelous for him to credit. To those who are aware of his criminal record he is always penitent, and makes endless promises regarding his future behaviour. He seems thoroughly in earnest when making promises, and I fancy really means to do

as he says, but he has not the necessary will power. After an extended acquaintance with B. you are convinced that he is in reality a man of a very low order of intellect, in fact, deficient and imbecile, ever ready to be influenced by the first advice he hears, be it for good or evil. Just after the commission of a crime he becomes deeply dejected, is restless at night, speaks of the past when he was a "good, religious boy," and is quite willing to talk of the morbid desire he has to do wrong. He says he fully realizes his weakness, and does not wish to be alone, for fear of this impulse, which is irresistible and can not be controlled.

Perhaps the most remarkable feature in connection with this case is the fact that the sight of blood generally makes B. much more dangerous than he is at ordinary times. He becomes excited, pale and agitated, and under the influence of the strange stimulant is particularly liable to the morbid impulse. Occasionally, after seeing blood, he has been known to act almost as if under the influence of an intoxicant, and has been terribly excited.

To sick patients he is particularly attentive and, when watched, kind, but can not be trusted with them alone for a moment; under ordinary circumstances he is a coward, but when a favorite attendant is in danger he will always come to the front bravely. He obtains tobacco, straps, string, knives and nails in the most mysterious manner, and has the most impossible hiding places; is inordinately vain and fond of gossip, and understands the art of flattery thoroughly. Other patients are utilized to the greatest advantage and their possessions as required transferred to B. His education is poor, and although he can read very well, his ability to write is limited.

The above are the prominent characteristics of the

man, and from the facts given it can easily be understood how difficult it is to care for such a patient in an ordinary asylum. B's plausibility is such that he can persuade almost any attendant to give him more liberty than the instructions prescribe, and his wonderful influence over other patients enables him to keep on hand a constant supply of the tools required in the carrying out of his unhallowed practices. B. certainly appears to belong to a totally different class from the other asylum patients.

While B. was an inmate of Kingston Asylum he was a constant source of anxiety, and the precautions taken to prevent him from doing wrong appeared complete, but then how is it possible to care for criminals and the ordinary insane under one roof?

Since B. has been in the gaol he has behaved himself very well, as might be expected. His opportunities for wrong-doing having been few, but as he confessed to me a few days since, he did not neglect the only good chances that presented. No less than three cats have mysteriously disappeared at the gaol, and although it appeared almost impossible that B. could have done away with them, still he was suspected. When visiting the gaol I taxed him with having destroyed the animals, and he laughingly told me that he had coaxed two cats into the gaol corridor, and thrown them into the furnace. The recital of the little incident appeared to afford him great amusement.

Mr. C. H. Corbett, Governor of Kingston gaol, is a very intelligent observer, and as he has had ample opportunities for studying B. under the most favorable circumstances, viz., when under constant supervision, I thought it would be of great interest to have him express his opinion on B's mental condition. As a contrast, to bring out the lights and shades of the

criminal's character, I have asked an attendant who knows B. well, to write a short account of his observations. The letters are just what might be anticipated, and are doubtless very accurate pictures from the different points of view.

KINGSTON GAOL, February 24, 1886.

Dear Sir:

In complying with your request for my opinion, founded on my observation, of William B., an insane prisoner at present confined in the gaol under my charge, I think it best to give his history since his incarceration. He was received in this gaol on the 21st August, 1884, on a charge of "assault with intent to commit rape;" was tried at the Assizes the following month, found guilty, and on the 16th was sentenced to "six months' gaol, with hard labour." On the 11th of March, 1885, the gaol surgeon, Dr. Oliver, reported to the Sheriff that B. was insane. A medical board was summoned consisting of Drs. Oliver and Fee, together with the County Judge, and an examination held, and the board pronounced B. "insane and dangerous to be at large." The certificates were forwarded to the Provincial Secretary at Toronto, but the prisoner has not as yet been removed from my custody.

Knowing that B's case was exciting considerable interest, I determined to give special attention to his case, and try and come to an independent opinion regarding him; to do this without prejudice was a difficult matter, as his past history was well known to me; I tried however to obliterate as far as possible from my mind all former knowledge of his case, and treat him in every respect as if he were perfectly sane and responsible for his acts. Accordingly he was placed with the other prisoners doing ordinary work, such as unskilled labourers perform. The guards were given orders to watch him closely, and report if they noticed any change or difference in his manner. His conduct was most exemplary, he was at all times obedient, willing and appeared desirous of conducting himself well, and as a proof of his success, I may mention, that it was not necessary to even repremand him for the smallest breach of prison discipline while serving out his sentence.

On the 16th of March, the date of the expiration of his six months' sentence, on being informed that he would have to remain in custody awaiting transfer back to the asylum, he quite naturally I thought, showed considerable displeasure, especially as the judge

on sentencing him informed him that at the expiration of the six months he would be discharged. For several days he was morose, and complained of what he considered his unjust treatment, however he soon regained his former manner which on the whole is rather cheerful; I was very loth to restrict his liberty even after the medical gentlemen had certified him "dangerous." I did however curtail his liberty somewhat, and placed him as a cleaner within the prison proper; he performed his work here quite satisfactorily. Later, being without a suitable man for prison cook, B. volunteered for the position, and I must say he answered the requirement admirably, and I only removed him on account of the recommendation of the gaol surgeon, who was of the opinion that it was unsafe to permit B. to have so much freedom, and access to carving knives, &c. I complied with the surgeon's order, but can not say I fully shared his fears. During all these months I had almost daily interviews with the prisoner, and certainly have failed up to the present moment to discover in what manner he is "insane and dangerous to be at large." You must not understand by this statement that I question for a moment, or intend to cast the slightest reflection on the medical gentlemen by this statement. You must remember, I am viewing his case solely from my personal observation since his imprisonment, and am not considering his former history; while on the other hand the doctors very properly took his former terrible history into consideration in making their certificates. The only case of cruelty or destructiveness that I am cognizant of his having committed since his twenty months' residence in this prison, is the killing of a couple of cats, and burning them in the furnace to hide his offence. He denied this on being charged by me with so doing, but as you informed me he admitted the act to you. On the other side, however, in justice must be recorded in his favor, that he has at all times shown uniform kindness to sick or infirm prisoners who have been confined in the same ward with him, sharing any little "extras" procured with money furnished him by his brother, with them, and doing all in his power to befriend them. In conclusion I would say, (leaving out his past history) that the conclusion I have arrived at, is that he might be classed as a case of slight dementia, requiring kind and considerate treatment.

I remain, sincerly yours,

C. H. CORBETT.

Governor, Gaol.

Dr. CLARKE, Medical Seperintendent Kingston Insane Asylum.

MARCH 1ST, 1886.

Dear Sir:

To be thoroughly acquainted with B's character and propensities would require a length of time, he being cunning enough to hide his inclinations for mischief. B. was always fond of reading the latest newspapers, playing cards, &c., in fact no one could see him so engaged and believe he was naturally so vicious and depraved; even in conversation he would let no word drop that would give suspicion as to his real character and inclinations.

When reading in the newspapers of a murder having been committed, or a tragedy of any kind having taken place, he was always the first to condemn the perpetrators of these acts, and wish for the speedy punishment of the offenders, and it is altogether probable that at the moment he was in earnest, but if shortly after he himself got the least opportunity, he would not lose a moment in satisfying his own cravings, which consisted in torturing, in fact seriously injuring any helpless patient or animal he might chance to find alone. If discovered in any of his cruel acts he did not care what became of him, in fact was perfectly reckless as to his safety for the time being, but on ordinary occasions when cool seemed to realize his position fully and had an earnest desire to do better. For some time after being discovered at any of his rascally acts he would be very unsettled in mind, but if no more opportunities for mischief presented, he would again become cheerful and with careful supervision a very useful man.

If B. by any accident caught sight of blood, his whole appearance changed. He would become extremely pale and agitated and seemingly quiet and listless, but if an opportunity presented itself he would go from one extreme to the other. B. had no mind of his own; the person who was the last to converse with him on any subject seemed to convince him, whether for good or evil, as the case might be. Nothing pleased B. more than seeing himself and surroundings neat and clean, and he was a vigorous disciplinarian except where he himself was concerned. B. certainly could never be depended upon for a moment.

In caring for the sick, he was always kind and useful, but under all circumstances it was highly necessary that he be accompanied by an attendant or some one in charge, or he would do the patient some injury. On one occasion I came upon B. just as he had cut a cat's throat with a piece of barrel hoop. B's hands were covered with blood, and he appeared to be satisfied and happy, although very pale and weak.

Sticking pins into the fleshy parts of old and feeble patients was a favorite pastime with him, and he always made certain that the pin penetrated to its full extent, much to his own satisfaction if not to that of the victim. B. always contrived to have in his possession old nails, screws, straps, twine and rope, and was never without tobacco, for if short of it he would steal it if necessary from the most intelligent on the ward, not to say anything of the helpless. To hide articles B. had places without number—in the backs of pictures, in his mattress, pillow, or the window ledges, on the coping-stones and in all places least likely to be searched. B. always appeared more knave than fool and was considered by the inmates associated with him in the asylum, to belong to a different type form themselves. He was the referee upon all subjects, and was respected and feared by all.

Yours respectfully,
J. DAVIDSON.

From the foregoing facts it is not a difficult matter to arrive at the conclusion that B. is a moral imbecile, and it is at least satisfactory to be able to classify him as such, for the reason that the case can now be referred to as an absolute type, free from the trammellings of that hazy definition known as "moral insanity." As Canadian law is at present, the question of B's care becomes a very difficult one to settle. An ordinary asylum is not the place for the criminal. We have no institution for the criminal insane, and this imbecile must remain in gaol until room can be found for him elsewhere. Strange to say it is impossible to convince the general public that B. is irresponsible and the impropriety of punishing him does not seem to have suggested itself, even to the very eminent judge before whom he was recently tried. The subject of insanity was ignored completely by crown and defence, although it was known B. came from the asylum. The judge in passing sentence said "he must be lenient under the circumstances," and distinctly impressed it upon the mind of the prisoner that he would be set free when

his sentence expired. B. was delighted at the prospect and seems to have thoroughly appreciated the advantages to be gained from being a moral imbecile.

A very interesting discussion vide October, 1885, number of *Journal of Mental Science*, took place upon the case of B., after the reading of Dr. D. Hack Tuke's paper, and the subject of the imbecile's responsibility was thoroughly gone into.

Before closing this article it might be well to say that in B's case there is distinct history of a neurotic inheritance.

MENTAL CHANGES RESULTING FROM SEPARATE FRACTURES OF BOTH THIGHS.

BY H. E. ALLISON, M. D.,
Senior Assistant Physician, Willard Asylum for the Insane, Willard, N. Y.

The following clinical case is related to illustrate the occasional effect of severe physical injury upon the mental condition of the insane. The points of particular interest are the long and continuous duration of the insanity previous to the injury and the occurrence of two precisely similar accidents each succeeded by great mental improvement.

Mrs. W., forty-eight years of age, was said to have an obscure history of hereditary predisposition to insanity on the maternal side. At the age of thirty-six, and about six years before admission, she became insane through the desertion of her husband and religious excitement, and from year to year gradually grew worse until her removal from home became a necessity. Her friends said that she was extremely melancholy, and that she was subject to constant delusions of persecution. She believed that her absent husband (who was in another State) was constantly watching her, and that he was assisted in doing so by numerous other people; that she was deprived of immense sums of money due her from imaginary suits at law. Her mind dwelt constantly on religious subjects. She thought that death was near, and a great dread of hell with all its horrors was constantly hanging over her; she feared that her arms were to be amputated, and was also possessed of hallucinations. When brought to the asylum in 1880 she was much

confused and agitated, and her mind was wholly occupied with prominent delusions. Her principal trouble, however, was a deep fear of death and hell—she was anæmic, but in good flesh, and her pupils were widely dilated.

For a short time after admission she remained moderately quiet, with some degree of stupor, but still possessing her delusions and fears, and finally became actively suicidal and restless, and constantly begged piteously with tears that she might be allowed to go to the lake and drown herself. She took food sparingly, alleging that she was very wicked, and that others would have to suffer much unless she deprived herself. Denied that she was Mrs. W., and said that Mrs. W. was a good woman, but that Mrs. W. was dead, and the living one, meaning herself, whom she designated by the third personal pronoun, was a dragon or devil, and ought to suffer. She rapidly grew more and more disturbed, and became a most troublesome patient—obscene, profane, violent, noisy, and very trying.

The expiration of one year after her admission found her confined to bed with a delusion that she was *enceinte*, and complaining of great pain in her hips and of inability to walk or sit. She remained in bed about three months, and was extremely difficult to care for. Her delusions absorbed her entire attention, and became more intense and more numerous than ever before. She believed her bones were broken, and every day imagined she received a new fracture. She mutilated herself with her nails and soiled herself with excrement, saying it was a healing ointment. At the expiration of about three months she began to walk about with no other change in her condition. In this state she continued for two additional years, all this time being very filthy in her habits, noisy and turb-

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ulent, believing that her limbs were broken and still retaining the old delusions, and was the source of much anxiety and required great care. Her self-mutilation increased to such an extent that for some time she was restrained with a camisole. At the end of about two years she began to improve somewhat in her habits, which became more cleanly, but in other respects evincing no change. She was still greatly disturbed, obscene and noisy, pulling her joints and picking her face and scalp until her hair was nearly all worn away, and retained all her delusions.

Four and one-half years after admission and eleven years from the commencement of her insanity, and while in this excited and disturbed condition, which had been almost continuous, she was pushed down by another patient in an altercation, and the shaft of her left thigh broken in the upper third.

The immediate effect of the injury was not to improve her mental condition, and she was consequently most difficult to care for, insisting upon leaving the bed, declaring that her leg was not broken, tearing off appliances and resisting all efforts to promote union.

She lost much flesh and became quite feeble and thin in body, but when improvement began she gained quite rapidly, both her physical health and mental vigor, and in a few weeks was up and about the hall, cheerful, industrious and quiet, and conversed freely upon the subject of her former delusions. Her excitement, which had continued uninterruptedly for the ten previous years, and which for the last five years had been excessive and constant, was all gone, and, in the place of a violently disturbed patient, she was an orderly and intelligent and industrious woman. Her condition improved so materially that her friends desired her removal, and five months after her injury, she was consequently dis-

charged, having apparently recovered her normal mental condition.

After about four months' absence from the asylum, and nine months from the date of the fracture, she was returned at her own request, complaining of sleeplessness and restlessness and indefinable fears of calamity about to befal herself and family. She was again admitted, and gradually grew worse, the old delusions re-asserting themselves finally in full force. She was suicidal, and attempted to cut her throat, inflicting an ugly gash with a fragment of broken glass. She attempted to destroy the window guards, and butted her head and face against the walls of the hall until her face was swollen and black with self-inflicted bruises. Much of the time she required to be forcibly held by attendants, and was noisy, violent and destructive, and in fact, had relapsed into a condition that was almost a precise counterpart of her former state, and in which she continued for eight months, when one night she called in distress to the night watch, who found her lying upon the floor with a fracture of the shaft of the opposite thigh, and which the patient said she had received in throwing herself from her bed to the floor. She was in great pain, and there was much angular displacement. The patient seemed to suffer from an unusual fragility of the osseous system.

As on the occasion of the first fracture, she resisted treatment, endeavored to leave the bed and to remove the dressings, but became tractable much sooner than before, and rapidly improved. At the expiration of eight weeks, having again become quiet and orderly, she was allowed to sit up. It is now more than six months since the date of the last injury; the patient walks about and employs herself industriously at sewing. Her mental condition has not reached that

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degree of restoration which accompanied her first improvement, as some obscure and ill-defined, but seldom expressed, delusions still remain. The change in her character, however, has become very marked, and she talks coherently and freely, is neat in her attire, and continues to improve.

It is a remarkable circumstance that in a case so inveterate and pronounced, and of such long standing, a severe injury, which at the time of its receipt was thought could not result otherwise than fatally, on account of the patient's disturbed condition, and her determination not to submit to treatment, should bring about not only an improved physical condition but also for a time an apparent restoration of her long beclouded mind. The enforced confinement to bed and prolonged rest could not alone have produced this end, for as detailed in her history she was confined to her bed on one occasion for three months without the least improvement, either physically or mentally, and the additional fact that upon her relapse a second precisely similar accident should again reduce an extremely disturbed patient to a condition of mental calm, would seem to show that the resulting effect was possibly the outcome of physical shock. It is well known that many patients have dated the commencement of their recovery from the recurrence of some great and sudden physical or mental blow which forcibly turns the current of thought into new channels, and for a while overtops their delusions and awakens some measure of self-control which gradually strengthens and comes to assert a proper authority and inhibits the unrestrained display of their abnormal egotism, and fosters a growth in the direction of returning health.

Moreover, while fractures and injuries in the insane, where the patients are tractable and willing to aid the

efforts of the physician, offer no unusal difficulties in the way of treatment, yet with highly disturbed and destructive patients, wilful and determined to thwart everything, the barriers in the way of a successful issue are vastly increased, and the patient often becomes much reduced in strength. Coincident with returning health, however, it may be that a general change in the nutritive processes takes place affecting the whole body, and with the taking on of new fat and fresh blood a healthier condition of the whole system results which may bring about a complete or partial physical and mental restoration, which in some cases may be permanent. In the case cited, rest and feeding alone might not have been sufficient, but the prolonged metamorphosis and destruction of tissues which followed the fracture accompanied by loss of weight and strength, afforded a new basis for the reparative processes which afterwards took place, renewing the whole body. Recoveries from mental disease, occurring after severe illnesses, illustrate similar conditions of body and mind. The case of Mrs. W. is the more interesting from the fact that two occurrences should have taken place in the same individual.

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BIBLIOGRAPHICAL.

REVIEW OF ASYLUM REPORTS.

Thirty-First Annual Report of the Cleveland Asylum for the Insane, for the year 1885. Dr. JAMIN STRONG, Superintendent.

Dr. Strong reports in Asylum November 15, 1884, 617 patients. Admissions, 253; discharged recovered, 99; improved, 45; unimproved, 59; died, 31. Of the admissions, 191 were cases of less than one year's standing.

Dr. Strong rightly protests against the necessity forced upon him of sending chronic cases to county houses, to make room for pressing recent cases. Of the 253 admitted, it appears that 42 were re-admissions, and hence his statistics are based on the distinction between persons and cases.

Dr. Strong gives us the benefit of a ten years' review of his connection with this institution, and confesses that his experience tends to weaken any sanguine view of the permanent curability of insanity, and all the more as the disposition increases to attribute it solely to organic disease or defect of the brain itself. "In it," he says, "lie the alpha and omega of our work, the beginning and end of our research." Still, he insists, that the chief hope of success lies in immediate and early treatment. What recoveries do take place are chiefly in asylums in this way.

Dr. Strong is quite severe upon some of the modern ideas of "liberty" and "non-restraint," or what he calls the "cattle-ranch" system of managing the insane; and as to medicines, his general principle is, that the brain, like any other organ, is responsive to the influence of medical remedies. There is a robust vein of common sense in his remarks on this and other subjects, in which he gives the amateur reformers and philosophers of these days some keen hits. If the daily press exclaims at the fatuity of leaving the insane to run at large in the community, for the sake of "personal liberty," how is it any less ridiculous to introduce such ideas within the precincts of an asylum itself? Dr. Strong vigorously rebukes the disposition to stigmatize and render odious the use of restraint. But of course, the statistics of casualties, and the cost of attendance ought in the end to settle all questions on this subject. The prescription of restraint, like any other prescription, is simply a

medical one, and is to be judged from the medical not sentimental point of view, and as a matter of protection to the patient. There is such a thing as over-confidence in the insane, about whom, indeed, there is nothing certain but uncertainty; and the record of tragedies, of late years, both in and out of asylums, hand in hand with the relaxation of restraint and oversight, justifies Dr. Strong in calling a "halt to those reform brethren who unwittingly but virtually advocate homicide as a means of promoting longevity." If to err on the side of prudence seems like folly, to err on that of recklessness is nothing less than a crime.

As to attendants, he thinks no amount of training will avail without some *natural* adaptation to the work, and in all cases they require careful *supervision*. Great danger arises from falling into mere habits of routine.

As to separate institutions for different classes, Dr. Strong lays down the propositions: "An asylum for the treatment of *none but* curable cases can not be: an asylum for the care and custody of the chronic insane exclusively, *should* not be." He believes both features should be combined, though it is perhaps too soon to pronounce upon the experiments that have been tried in this direction. He appears to favor enlarging present institutions with additions or annexes, not perhaps requiring the same scale of expenditure for equipment.

Forty-Second Annual Report of the Butler Hospital for the Insane, January 27, 1886.

The report of the trustees is chiefly occupied with a very fitting and earnest tribute to the late superintendent, Dr. John Woodbury Sawyer, who died December 15, 1885, after a brief illness, with an obscure disease of the throat. He was the pupil and successor of the late Dr. Isaac Ray in 1867, and few specialists have been honored with such marked testimonials to his worth. Dr. H. C. Hall, acting superintendent, furnishes the statistics for this report.

Patients in hospital January, 1885, 178, (women, 110). Admitted during the year, 133, (women, 74); discharged, 125, (women, 80); remaining, 186. Of the discharges, 33 had recovered, 53 improved, 18 unimproved. Deaths, 21, many of them elderly persons, who succumbed to the trying weather of August and September. Dr. Hall speaks of a common difficulty, the impatience of friends, who ask premature discharge of patients when the first signs of returning reason appear.

Two stories have been added to the administrative wing, and there is urgent need of addition on the male wing for acute cases. This institution is fortunate in having a "Beneficiary Fund" for needy cases that pass beyond the stage of curability. The trustees have elected as successor to Dr. Sawyer, Dr. W. B. Goldsmith, superintendent of the Danvers Lunatic Hospital, as already announced in this JOURNAL.

Twelfth Report of Superintendent of the Cincinnati Sanitarium for year ending November 30, 1885. Dr. ORPHEUS EVERTS, Superintendent.

Dr. Everts reports in hospital 1884, 57. Admitted during year, 165, (women, 51); total, 222, (women, 80); recovered, 103, (women, 28); improved, 20; unimproved, 31; died, 11; remaining, 57.

Of the admissions, 49 were cases of alcoholism, and 17 of opium habit, of whom 30 are in the "recoveries;" mania, 48; melancholia, 30.

This is a private institution, but the medical management has no proprietary interest.

Forty-Third Report of Mount Hope Retreat for the year 1885. Dr. W. H. STOKES, Physician.

Patients in hospital, 492, (women, 272). Admitted during year, 191, (women, 91); total, 683; discharged recovered, 98, (women, 32); improved, 42; unimproved, 10; died, 50. Eighteen of those discharged were sent to the new Baltimore Asylum at Bayview. Of the 98 discharged cured 76 were recent cases. Of the 200 in all discharged, 96 were of more than a year's standing on admission, and 104 of less.

This institution is under the Sisters of Charity, and Dr. Stokes' management seems to be fully up to the standard expected in these days, and to show a high percentage of results.

Report of the North Texas Insane Hospital at Terrell for year ending October 31, 1885. Dr. D. R. WALLACE, Superintendent.

This institution was opened in July, 1885, and the erection of the new buildings completed during the past year, at a cost of $183,289. We find no description of the hospital building itself, but from the detailed account of the furniture, apparatus and appurtenances, we should judge it to be admirably equipped, and supplied with nearly all the latest improvements. There is a farm of 633½ acres, the asylum grounds taking about 20 acres, all well

fenced and enclosed. There is a good supply of water from reservoir wells, pumped up to an elevated tank. The report mentions a new feature, thus described: "There are three galleries in each wing—six in all. Each is divided into four sections eight feet square. This space in construction of building was protected only by No. 6 wire. In cold, wet weather this whole space requires to be closed up, thus converting these galleries into side corridors. This was effected by steel roller-blinds, size of openings; a rather novel contrivance, but the one that seemed best suited to the situation."

The number of patients in residence November 1, was 112—ten more men than women. Dr. Wallace, who previously had charge of the institution at Austin, is utilizing his experience in this new hospital, under most favorable auspices.

ENGLISH REPORTS:

Report of the Bethlem Royal Hospital for the year 1885. London.

The Medical Superintendent of this ancient institution is Dr. Geo. H. Savage. He reports in the asylum, January 1, 1885, patients, 251. First admissions in 1885, 252, not first, 45; total admissions, 297, (men 36); discharged recovered, men 52, women 100; relieved, 23; not improved, 88; died, 26; total discharged and died, 289; remaining December 31st, 289, (men 121). The percentage of male admissions recovered was 38; of female, 62.

In connection with Dr. Percy Smith's appointment to fill the place of Dr. Ramsden Wood, removed to Queensland, Dr. Savage remarks on the advantage of having medical officers of broad, general culture, and an experience not limited to asylums, and says, "Insanity is not more frequently the result of brain disease than of bodily disorder, and he is most likely to cure insanity who can most readily detect failure in general bodily health." The doctor speaks of it as a "new departure" that surgical operations have been performed on patients in the past year, some of which have contributed to mental recovery. Under the head of Social Treatment, he states great benefit derived from occasionally sending patients home on leave, and expresses the opinion that change of scene and traveling so often resorted to at the outset would come better after a period of rest in a hospital. In this institution clinical instruction is given to large classes of medical students. It also has a number of voluntary paying patents, who

are not under certificates. In regard to attendants, he says, "I hope in time to get the attendants to act more the part of caretakers and medical clerks than mere machines to prevent accident, and I hope during the coming year to meet them from time to time, to give *general instructions* in the observation and care of the insane." We quite admire Dr. Savage's unpretentious and very direct and business-like style of writing.

As to restraint, we make out from the Commissioners' reports of two visits, that there were 12 cases of mechanical restraint, 42 of seclusion, and four of sheet-packing. There are also padded rooms and "side arm dresses" for "destructive and suicidal" patients. We commend these figures to such officials as imagine that the insane are going to be managed hereafter by some indefinable influence of a *quasi* animal magnetism, or the magic of an artful and well-trained voice.

Thirty-Third Report of the County and City of Worcester Pauper Lunatic Asylum. Dr. E. MARRIOTT COOKE, Superintendent.

This shows 821 patients remaining December 31, 1885, with about 100 more women than men. Admitted during the year, 185; discharged, 60; died, 92. Of the admissions, in only 48 cases were there any chance of recovery, there being a large percentage of paresis, epilepsy, and idiocy. Of the discharges 46 were recoveries. In 88 post mortems 49 cases of actual disease of the brain were found. The death rate is large, as result of accumulation; 34 being over 60 years of age. This asylum has recently added an annex, enlarging its capacity to 944 patients.

Thirty-Fourth Report of the Derbyshire County Asylum. Dr. J. MURRAY LINDSAY, Superintendent.

This report shows January 1, 1885, 431 patients. Admitted during the year, 112; discharged, 59; deaths, 62. The usual complaint is made that insane people are sent to asylums from workhouses only when they become intractable, destructive or debilitated and chronic. Only about 7 per cent of the present inmates are deemed curable. Of the discharges, 45 were recoveries. One patient, for murderous assault on the superintendent, was removed to Broadmoor. Here, as elsewhere, a considerable percentage of the deaths is from pulmonary consumption. Sixteen were over 60 years of age. Dr. Lindsay makes a strong plea to secure the erection of a separate building as a hospital for infectious diseases.

CANADIAN REPORTS:

Eighteenth Annual Report of the Inspector of Prisons and Public Charities of the Province of Ontario, Canada, for year ending September 30, 1885.

This Report shows the total number of patients in the four Provincial Asylums as follows:

	TORONTO:	LONDON:	KINGSTON:	HAMILTON:
Sept. 30, 1884,	703	907	500	561—2671
Sept. 30, 1885,	694	908	504	599—2705

The admissions were 457, and the increase small owing to lack of accommodation, there being a large number in jails awaiting vacancies. The percentage of cures to admissions was, for Toronto, 46.55; London, 36.29; Kingston, 47.54; Hamilton, 37.65. The number of "probational discharges" was 145; of which 86 recovered; 17 were discharged improved; 4 unimproved; 21 were returned, and 17 remained out. The average mortality was 4.61 per cent. The number of days work done by patients is considerably more than half the "collective stay" of all the patients. The average weekly expenditure per patient is $2.38. The number of paying patients in 1885 was 509.

At Hamilton during the past year, a new "Cottage building" of brick three stories has been erected for chronic cases, 65 being now quartered there. An abandoned college building at Kingston has been leased for a similar purpose, and contains 150 beds. The Inspector has submitted plans for another Cottage building at Hamilton modelled after those at Jacksonville, Ill., and Middletown, Ct., to accommodate 300 patients, at a cost of $4.27 *per capita.* The authorities at Middletown are well satisfied with the actual working of the plan.

The asylum at Kingston, originally a prison, has been greatly improved and adapted to its present use, by considerable recent expenditure.

Dr. Clark, at Toronto, reports that he has had no seclusion or restraint, except in one surgical case; but he is not disposed to make it a hobby. He says "if on the other hand, it is the mature judgment of an experienced medical officer that mild bodily restraint of some kind is best for the patient, the mere clamor of hobby-riders should not deter him from doing what he conscientiously believes is his duty in the individual case."

He has also put a stop to the miscellaneous visiting of his institution by mere sight-seers out of morbid curiosity, believing it to be injurious to the patients. He quotes the article in this journal on the subject, and enlarges upon it. He also puts in some

well considered remarks on the ill effects of allowing patients to work as much as they will. For those not in condition to be their own guides in this matter, the physician should guard against abuse. The farm has been reduced to 79 acres. The Doctor very justly pleads for the use of a Government farm of 320 acres, about five miles distant. One would suppose there need be little difficulty in obtaining it.

Dr. Bucke (wrongly spelled *Burke* in this report) at London, gives quite a cheering account of repairs and improvements made, besides things still wanted. He reiterates his experience on alcohol and restraint, and reports that out of 1,031 patients in residence the daily average of working patients has been 805, which is remarkable considering the climate. The farm products show the results, and have contributed to lower the maintenance rate.

We congratulate him upon the new chapel which has been fitted up for both Protestant and Roman Catholic services; as also the decided variety in the character of the amusements he is able to provide for his patients.

Dr. C. K. Clarke, at Kingston, who succeeded the late lamented Dr. Metcalf, gives an account of the death of the late superintendent, with a genial and unaffected tribute to his superior qualities, and the good effects permanently wrought upon the institution by his brief administration.

Dr. Clarke reiterates Dr. Metcalf's protest against retaining insane criminals in the institution. The difficulties of caring for patients of the dangerous class has been much enhanced by the relaxation for patients generally of the restraints and restrictions of former years, and render it necessary that this class should be treated by themselves.

The principal facts of the Hamilton Asylum (Dr. Wallace, Superintendent,) have been already given. Besides the new buildings, an additional farm of ninety-two acres has been purchased.

Report of Quebec Lunatic Asylum for the years 1883–4. Drs. F. E. Roy, G. A. Larne, and A. C. P. R. Landry, M. P., Medical Superintendents and Proprietors.

Drs. Roy and Larne report whole population under treatment, 1,015. Admitted 111; remaining July 1, 1884, 906; discharges, 47; deaths, 62. Of the 47 discharged 31 were cured.

The tabulation is very full and complete, and the remarks chiefly devoted to the importance of early treatment, with liberal quotation of authorities and statistical proofs.

BOOK REVIEWS.

How to Care for the Insane. A Manual for Attendants in Insane Asylums. By WILLIAM D. GRANGER, M. D., First Assistant Physician to the Buffalo State Asylum for the Insane, Buffalo, N. Y. New York and London: G. P. Putnam's Sons, 1886.

Last year we had occasion to call attention to a Scottish manual for attendants, prepared by a committee of the British Medico-Psychological Association. The seed thus sown in Britain has borne good fruit in our own country, and in our own State, by the publication of a similar book by Dr. Granger, of the Buffalo Asylum. Simple as the task may at first blush appear, the preparation of a hand-book for the guidance of attendants in their daily duties, however experienced the writer, is fraught with considerable difficulty. Mere book-making on the one hand and practical illustration of the proverbial dangerousness of "a little knowledge" on the other, have been deterrent extremes in this line of authorship, and it must be conceded to be an undertaking of some delicacy, not to say an impossibility, to lay down rules of conduct that shall be catholic in application and in no case run counter to individual judgment and local usage.

Among the great difficulties in organizing asylums for the insane has been the framing of rules by superintendents and boards of managers, and in so far as Dr. Granger's little book is supplementary to such rules, and promotes the attendant's appreciation of his calling and his duties, it will be a welcome aid to the better solution of the problem involved in its title.

The author has done wisely in not attempting, in his

first chapter on "The Nervous System and some of Its More Important Functions," more than the merest outline of anatomy and physiology, and that in the simplest language. The same criticism applies to the second and third chapters on "The Mind and some of its Faculties," and "Insanity; or Disease of the Mind," respectively.

The practical portion of the book begins with Chapter IV, on "The Duties of the Attendant." Then follow chapters on the following subjects: "General Care of the Insane"; "Care of the Homicidal and Suicidal Insane, and of those Inclined to Acts of Violence"; "Care of Some of the Common Mental States and the Accompanying Bodily Conditions"; "Some of the Common Accidents among the Insane, and the Treatment of Emergencies"; "Some Services Frequently Demanded of Attendants, and How to do them".

To enumerate these headings is to sufficiently indicate the contents of the respective chapters. In the main these latter may be said to constitute an elaboration of a good code of ethics and rules, and we may commend the manner in which, on the whole, a difficult and delicate task has been accomplished.

There are instances here and there of the absence on the part of the proof-reader [or shall we say author?] of that "never-sleeping vigilance" which Dr. Granger insists upon as a cardinal duty of the good attendant. These shortcomings, however, detract in no way from the practical merit of a manual which may be safely placed in the hands of all attendants, and for which we bespeak a favorable reception. It is neatly bound and printed, and published at a price which permits of easy purchase by those for whom it was written.

Lectures on the Care and Treatment of the Insane, for the Instruction of Attendants and Nurses. By W. C. Williamson, M. D., Assistant Medical Officer, Hospital for the Insane, Parramatta, New South Wales. Sydney: Thomas Richards, Government Printer, 1885.

"If attendants on the insane are not trained in the knowledge needed for their responsible duties, but left to grow by chance into their official shape, they can hardly fail to come far short of the proper standard of intelligent efficiency necessary to make them fit guardians of the inmates of hospitals for the insane."

The foregoing paragraph is a quotation from a preface to this book, written by Dr. F. Norton Manning, and the author is evidently imbued with the master's spirit. In ten lectures, pleasantly written and utilitarian in their scope, Dr. Williamson has done much towards giving "attendants and nurses in charge of the insane a greater interest in, and a better knowledge of, the duties of their position."

NOTES AND COMMENTS.

THE COMMENCEMENT EXERCISES OF THE TRAINING SCHOOL FOR ATTENDANTS AT THE BUFFALO ASYLUM.—The following account is by a prominent physician who was present on the occasion:

In October, 1883, the managers of the Buffalo State Asylum inaugurated a training school for asylum attendants, and the resident officers began the work of instruction. It was contemplated to give instruction especially in the duties of attendants and not to attempt much teaching in general nursing. It was soon found desirable, however, to enlarge the scope of the school, and in the following year it was decided to establish a definite course of instruction which should be as systematic and thorough as any given in a Nurses' Training School, and should have special reference to fitting the attendant for efficiency in any department of asylum nursing. The course of instruction, by means of recitations and lectures, was arranged for a period of two years with progressive studies and yearly examinations, leading up to a final examination by a Committee of the Board of Managers and the conferring of a diploma. Lectures were given on the fundamental principles of physiology, hygiene—including ventilation, clothing, bathing, etc.,—the use and effects of remedies, the administration of food, the control of hemorrhage, the application of surgical dressings, the use of the catheter, the clinical thermometer, &c. Attendants were taught the forms of mental disease, the character of mental operations, the difference between delusions, illusions and hallucinations, and the best methods of caring for the various classes of the insane, with directions as to exercise, amusement,

occupation and companionship. They were taught how to meet emergencies, how to observe symptoms, and how to make written reports upon the mental and physical condition of patients. During the first year one formal lecture or recitation with accompanying quiz each week was given, and during the second year from one to four lectures were similarly given. The instruction was regularly and systematically carried on by the medical officers and from the start a large amount of interest was developed among the attendants. This interest became universal, and finally but a single attendant, who was disqualified by years and an imperfect knowledge of English, was absent from the classes. In April last seven female attendants completed their course of study and sustained a creditable examination before Hon. Francis H. Root and Drs. J. D. Hill and John Boardman of the Board of Managers. The scope of the instruction given is well shown by the questions which the candidates were required to answer. A few examples are given herewith:

MISCELLANEOUS QUESTIONS.—(11 Questions in all.)

1. What is the normal rate of breathing, and the varieties of abnormal breathing?
2. Give Apothecary's Weights.
3. Name the dose of powdered opium, tincture of opium, morphia, the common names of tincture of opium and camphorated tincture of opium, the strength of solution of morphia U. S. P.
4. Give symptoms and treatment of opium poisoning.
5. In what conditions is alcohol useful?
6. After what injuries should it be avoided?
7. What is a deodorizer, an antiseptic and a disinfectant?
8. What are the ordinary antiseptics in use?
9. Give the varieties of hemorrhage and the methods of arresting each.
10. What is asphyxia? What should be done in cases of drowning, hanging or suffocation?

11. How is artificial respiration performed?
12. Give methods of applying moist heat—a turpentine stupe—fomentations—poultices—mustard plasters.
13. Give the most common means of applying cold.
14. How should a room be disinfected after a case of contagious disease?

EPILEPSY.—(15 Questions.)

1. What are the characteristics of a fit?
2. What conditions are liable to follow a fit?
3. What is the danger of a fit?
4. How long may unconsciousness last?
5. What is to be done in a fit?

INSANITY.—(38 Questions in all.)

1. Give some of the physical conditions of acute mania.
2. Give some of the physical conditions of acute melancholia.
3. Detail the care which such patients need.
4. What is a delusion? An insane delusion?
5. What is a fixed delusion?
6. What is a changeable delusion?
7. What are delusions of suspicion?
8. What are hallucinations?
9. What is an illusion?
10. How would you hold an excited patient?
11. How would you carry a patient?
12. What patients are likely to choke themselves?

In addition there were 55 questions upon midwifery and monthly nursing, 14 questions upon the nervous system, 18 questions upon the mind, etc.

The commencement exercises upon the 20th of April, 1886, were held in the chapel of the asylum, and were numerously attended, Messrs. Root, Hill, Boardman and Irish, of the Board of Managers, Dr. Stephen Smith, Commissioner of Lunacy, W. P. Letchworth, the Chairman of the Board of State Charities, Right Rev. Bishop Ryan, and many other professional gentlemen from Buffalo being present. Three of the seven graduates presented essays upon topics to which they

had given special attention, all of which possess peculiar interest as showing the intelligence of the attendants and their thoroughness of observation.

The following is taken from that of Miss Leitch:

An illusion is a mistaken identity. It is distinguished from an hallucination by the existence of something external to the body to cause it. In the most perfect state of mental health we are subject to certain illusions. A square tower seen from a distance appears round, but if we approach it the error is rectified. To one in a boat the shore appears to move; reflection immediately corrects this illusion. In consequence of the exercise of reason and observation these illusions are not credited, and therefore do not influence the actions. Illusions may affect any one of the senses separately or all of them. The most frequent are those of sight and hearing. If the nerves of sensation convey exaggerated impressions regarding any part of the body, it constitutes an illusion, and if it is manifestly absurd, and the patient's reason can not perceive that it is an illusion, he is also of unsoupd mind. A patient suffering from illusions may see a row of trees and say they are a company of soldiers, or he may hear the wind and say it is an absent friend speaking to him. Illusions may be the cause of violent acts, and terminate in murder or suicide. An hallucination is the imagining of objects that do not exist. Hallucinations may involve any of the five senses. The patient thinks he hears, sees, tastes, smells or touches something, when it is really nothing but his imagination; as for instance he thinks he hears the voice of God or of an absent friend, or of some one who is dead. I have noticed a patient who will sit at a window and listen; presently she will speak and then listen again and then she will reply. On being questioned as to whom she is talking with, she will say "a friend in Lockport." These false impressions and ideas are very real, and are thoroughly believed in by the patients, who are often rendered suicidal, homicidal and violent by them. Occasionally patients are able to control and understand their hallucinations, while the other is very much interfered with in consequence of these hallucinations. We have a large number of patients in this asylum who are suffering from hallucinations. I have counted sixty-three who have them. Out of that number thirty-four have hallucinations of hearing, eight of sight, fourteen of both sight and hearing, three of smell, two of taste, and two of touch. Like illusions, hallucinations of sight and hearing

are most frequent. Hallucinations of smell are uncommon. Patients with hallucinations of smell will complain of odors, sometimes pleasant, but more frequently disagreeable. We have a very good example in a lady patient who complains exceedingly of the injury done to her health by the sulphurous fumes with which some one, as she believes, is constantly filling her room. Hallucinations of one sense are less commonly found than of several. [?] Sometimes a patient hears sound only through one ear, or sees imaginary objects only through one eye, the other eye and ear being unaffected.

The following is extracted from the essay of Mrs. Hobson upon the "Relations of Attendants to Patients:"

Attendants for the insane are more than nurses for the sick. They are ever on the watch, are the instruments of order and discipline, and to a great extent the active agents of moral treatment. To be with these poor sufferers and not take an interest in them is impossible. Sometimes humanity warms the interest and it is exalted into a principle, but if we go still farther and religion animates it, happy indeed is the woman whose mind and moral nature are harmoniously engaged in the dispensation of mercy to her fellow creatures. Although many of the patients seem well, there is good reason te believe that much of what they do is to be attributed to a still existing morbid state of the brain, and especially so if such proceedings are contrary to their natural characters. Everything that is dependent upon disease must be excused, and the sufferers deserve to receive our sincere sympathy. Cheerfulness is a quality which we must take and use as a natural product to value and preserve. By cheerfulness I do not mean mirth, but a bright, happy disposition, capable of sympathizing with the unhappy, and imparting to a greater or less extent its own frame of mind. As it has been well said in writing on this subject, "the sun is down and the trees are black to the eyes of the melancholic, but a ray of imparted cheerfulness will make them bright and green again, if but for a moment. Let the impression be repeated and the daylight color of healthy perception will gradually return." The two great resources of occupation and recreation are subjects in themselves. They are directed by the physician, but can only be carried out by the attendants, and the manner in which they acquit themselves in this matter is a test

of their worth and of the curative powers of the establishment to which they belong.

The essay of Miss Owens upon "The Value of the Regular Administration of Food," contained original investigations upon the value of certain articles of diet. Each patient, she said

> Has her own peculiar reason for declining to eat the amount of food that is needed for her to regain strength of body and mind. One patient says that she has direct orders from God not to eat, while another labors under the delusion that every mouthful taken is causing some unfortunate person to starve for want of food. Patients are often brought to the asylum in a weak and starving condition. In one instance a woman gained six pounds in weight in 18 days upon a milk diet alone. In feeding patients the best results are obtained from milk, oatmeal, and bread and butter.

The candidates for graduation were then presented by Dr. Andrews to the President of the Board of Managers, who, after a few well-chosen remarks, gave to each a parchment certificate of the successful completion of the course, signed by the Managers, the Commissioner in Lunacy, the President of the Board of Charities, and the Medical Staff of the Asylum.

The address of Dr. Stephen Smith, the Commissioner in Lunacy, was largely historical, and happily described successive eras in the care of the insane in New York, and the progressive improvement in their condition. He spoke appreciatively of the excellence and conscientious character of the work of State asylum attendants as a class, which he regarded fully equal to that done in any general hospital. He felt that such self-denying duties, so faithfully performed, should receive an adequate and graded compensation. The extemporaneous remarks of Bishop Ryan, which followed, expressed a warm interest in the new work, and an urgent desire for its continuance. He felt a deep sympathy in efforts to improve the care of the insane, and desired to

coöperate in this as heartily as in all other branches of charitable and philanthropic work.

It is gratifying to know that similar training schools are already projected in connection with several other asylums. The effect of such schools upon the standard of asylum care and attendance generally throughout the country can not but be excellent. It is universally recognized that it is not sufficient to give a rule book to attendants and expect them unaided to achieve the best results. They must be carefully and painstakingly instructed and their energies skilfully and intelligently guided. Every such effort tends to make the position of the asylum attendant more permanent and his work more intelligently performed.

The medical superintendent and the assistant physicians of the Buffalo Asylum deserve much credit for their painstaking efforts to establish this school and to carry on the work of instruction without outside aid. The hours of leisure enjoyed by medical officers are scanty at best, and to successfully instruct attendants and to teach them how to study require much self-sacrifice and an earnest devotion to the work. The almost ideal relations existing between the officers and attendants at Buffalo show that these efforts have already been richly rewarded.

Meeting of the Association of Superintendents.—The fortieth annual meeting of the Association of Superintendents of American Institutions for the Insane was held at Lexington, Ky., May 18–22, 1886. There was a fair attendance of superintendents and assistant-physicians from all parts of the country.

In the absence of the president, Dr. C. H. Nichols, the chair was occupied by Dr. Orpheus Everts. Papers were read by Dr. Everts, Dr. Henry M. Hurd, Dr.

William D. Granger and Dr. James D. Munson, all of which will be published in due course. Dr. Foster Pratt, of Kalamazoo, made a strong appeal for legislation to check the immigration of the insane from foreign countries.

A novel feature of the meeting was the introduction of an omnibus discussion by Dr. Hurd on topics of general interest.

The proceedings are being printed with all possible dispatch, and will appear as a separate *brochure* before the regular issue of the October number of this JOURNAL.

The members of the Association enjoyed the hospitality of the managers and superintendent of the State Asylum at Lexington. An old-fashioned Kentucky barbecue and "burgoo"—the latter being a soup of mysterious composition and doubtful digestibility—were among the attractions of the afternoon on the spacious blue grass lawn of the institution.

Major McDowell, who occupies the historical Henry Clay homestead of Ashland, entertained the Association with true southern hospitality, and displayed his magnificent thoroughbreds to the edification of all.

The members were also privileged to inspect the celebrated stock farm of Colonel Treacey.

The weather was delightful and all joined in pronouncing the meeting alike profitable and pleasurable.

Dr. H. A. Buttolph, of Short Hills, N. J., was chosen president for the ensuing year, and Dr. Eugene Grissom, vice-president.

The Association adjourned to meet in Detroit the second Tuesday in June, 1887.

UNIFORMING ATTENDANTS.—A correspondent writes us on this subject: The movement to place asylum

attendants in uniform seems to be making considerable progress. Already two of the asylums of Michigan have adopted uniforms, and several asylums in other States are contemplating a similar step. In one of the Michigan asylums the movement orginated with the attendants who desired a uniform as a matter of economy, and as a check upon a growing spirit of extravagance in dress which had become burdensome to many of the best attendants. It is thought that where uniforms have been introduced the *esprit de corps* of the attendants has been increased and the service has assumed new importance. The step is regarded by some as a legitimate out-growth of the present efforts to elevate the standard and increase the permanency of asylum service.

Retirement of Dr. Orange.—We learn that Dr. Orange, whose name has for so many years stood as a synonym for Broadmoor, has been compelled to resign the superintendency of that celebrated institution on account of ill-health. Our readers will be sorry to hear that the Doctor has never fully recovered from the murderous assault made upon his life by a patient in 1882. It will be remembered that his assailant struck him a violent blow on the head with a stone slung in a handkerchief.

It is pleasing to learn that Dr. Orange's valuable services to his country have been recognized by his Queen in the shape of a Companionship of the Order of the Bath. We congratulate Dr. Orange on this well-earned honour, and our best wishes go with him in his retirement.

Thirteenth National Conference of Charities and Correction.—The Thirteenth National Conference of

Charities and Correction will meet at St. Paul, Minnesota, on Thursday, July 15th, and remain in session until Wednesday the 21st inst. The meetings will be held in the hall of the House of Representatives in the Capitol. The Conference will be welcomed by Governor Hubbard, of Minnesota, by the Mayor of the city of St. Paul, and the President of the Chamber of Commerce. Responses will be made by distinguished delegates. Dr. Richard Gundry, of Catonsville, Md., is chairman of the Committee on the Insane.

Oregon State Insane Asylum.—Dr. S. E. Josephi, formerly superintendent of the Oregon Hospital for the Insane, East Portland, Oregon, (which was discontinued upon the opening of the Oregon State Insane Asylum at Salem, Oregon,) has been appointed superintendent of the latter, *vice* Dr. H. Carpenter, resigned.

OBITUARY.

ABRAM MARVIN SHEW, M. D.

Dr. Abram Marvin Shew, Superintendent of the Hospital for the Insane at Middletown, Connecticut, died April 12th, 1886, from the effects of an accident which occurred about two months previously.

He was born September 18th, 1841, at Le Roy, Jefferson County, New York, and was the youngest of a family of eleven children. When eleven years of age he removed with his parents to Watertown, N. Y., where he received an academic education at the Jefferson County Institute. It was his intention to enter college at Schenectady, but he was prevented from doing so by the outbreak of the war in 1861. Having decided upon his profession, he at once entered upon the study of medicine at the Jefferson Medical College, Philadelphia, and was one of the pupils of Professor W. H. Pancoast. During his course of study his attention was called to the subject of insanity, and he spent some time as an assistant at the New York Asylum for Insane Criminals at Auburn. Immediately after his graduation he was examined and passed as an assistant surgeon of volunteers, and assigned to duty at Hilton Head, South Carolina, as post surgeon; he remained in this position until the close of the war.

After his return to Philadelphia, he was appointed one of the resident physicians of Blockley Hospital, and finding his interest in the subject of insanity re-awakened, he decided to make that subject the speciality of his professional life.

In the spring of 1866 he was appointed as an assistant in the State Lunatic Asylum at Trenton, New Jersey, and in the autumn of the same year was chosen

superintendent of the Connecticut Hospital for the Insane at Middletown, which position he held to the close of his life.

As already stated Dr. Shew's death resulted from the effects of an injury which he had received some two months before. He was in the act of coming down from the second floor of the hospital with the large book in which is kept the records of the proceedings of the directors of the hospital at the monthly meetings, and when on the top stair, the heel of one shoe became entangled in the carpet. He made an effort to clutch the railing of the stairway with the left hand, but succeeded in only partially arresting his fall, and then rolled to the bottom of the stairs. He was immediately seen by his assistant, Dr. Olmstead, and though much jarred, was entirely conscious and able to be removed to his house in the course of a few hours.

It subsequently appeared that the spine was injured, and the membrance of the cord became irritated and inflamed. The inflammation which began in the lower portion of the cord extended slowly upwards to the base of the brain, and he suffered greatly at times with pain in that region. This pain on two or three occasions was relieved by a spontaneous hemorrhage at the nose. Towards the last, he passed one week unable to retain any solid food and but little food of any kind on his stomach. He however recovered from this condition, and on the Thursday before his death, went to the hospital to attend a meeting of the directors, but his condition was such that the board at once voted him a leave of absence, and urged him not to undertake any professional duty for some time. He passed the larger portion of April 15th lying on a lounge in his chamber, but made no complaint except of debility. He retired as usual and went to sleep,

but never, so far as is known, awoke. He was found in an unconscious condition in the early morning, and died at about 12 M.

Dr. Shew was sanguine, hopeful, and always disposed to look on the bright side, if there existed any bright side, and if there was none, he tried to find or make one. He never gave way to despondency. He never lost heart even when the clouds of affliction in the loss of family, and the loss of his own health, hung thick about his horizon. However much of anxiety he might feel in relation to business enterprises, and the conduct of the large institution over which he presided; however much doubt he might have had at times in relation to his ultimate recovery, no one ever knew of it or heard him complain.

His ability to carry his own and other burdens, and his self-control were of an unusual order.

These qualities of character made him many friends in the sphere of life in which he moved, and his loss will be greatly deplored by all with whom he came into friendly relations. He had large executive ability, and the institution of which he had charge gives abundant evidence of his thorough appreciation of the needs of the State in providing for the insane, as well as of his skill in carrying forward such plans as were adopted.

In some respects he might be regarded as a model superintendent, and as one whom we might all imitate. It was his constant endeavor to make his patients believe that he was their friend as well as their physician, and his ever cheerful face and hopeful words, his constant anticipation of brighter days and better things to come for them soon, together with the magnetism of his manner and bearing, caused many of them to become greatly attached to him, during the convalescent period of disease.

These same qualities of mind also inspired the highest regard of those who were associated with him as assistants and helpers, and insured the execution of his purposes and plans even when he was unable, as was not unfrequently the case during considerable periods, to personally supervise the details.

He was slow to take offense and rarely remembered an injury. He was a skilful physician, a sympathetic and appreciative friend. Dr. Shew married Miss Elizabeth Palmer, of Watertown, New York, in January, 1860. She died in January, 1874. In June, 1878, he married Miss Clara Bradley, of Auburn, New York, who died September 23d, 1879. October 23d, 1884, he married Miss Clara Brown, of Staten Island. A son and daughter of the first wife survive.

JOHN W. SAWYER, M. D.

At the regular meeting of the New England Psychological Society, held at Boston, April 13, 1886, the following resolutions were unanimously adopted:

Whereas, An all-wise Providence has removed by death Dr. John W. Sawyer, Physician and Superintendent of the Butler Hospital, Providence, R. I.,

Resolved, That this society has sustained a great loss in the death of one who has been a highly esteemed member during all of its existence, and that its members individually feel a deep sense of bereavement in being thus deprived of the presence of an associate whose personal qualities had endeared him to all, and desire to express their high appreciation of his moral worth, his undivided devotion to duty, and of the value to the insane and to the community of the life that has thus suddenly been brought to a close when apparently in the meridian of its strength and capacity for usefulness.

Resolved, That a copy of these resolutions be sent to the family of the deceased member, and that they be published.

GEORGE C. CATLETT, M. D.

It is with great regret that we announce the death of Dr. George C. Catlett, Superintendent State Lunatic Asylum No. 2, at St. Joseph, Mo., Wednesday, May 19, 1886. Details will be published in our next issue.

DR. LEGRAND DU SAULLE.

This Nestor of French psychiatry died in Paris last May. A sketch of his eventful life will appear in our next issue.

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No. 7 C. Yellow	
No. 8	2 00
No. 9 L. Green	2 25
No 10	2 00
No. 11	2 00
No. 12	2 00

	Per Gall.
No. 13 D. Vermilion	
No. 14 D. Green	$2 25
No. 15	2 00
No. 16	2 00
No. 17	2 00
No 20	2 00
No 21	2 00
No. 23 Marine Black	2 00
No. 24	2 00
No. 25	2 00
No. 26	2 00
No. 27	2 00

	Per Gall.
No. 29 L. Vermilion	
No. 30	$2 00
No. 31	2 00
No. 32 Marine Red	2 20
No. 33	2 05
No. 34	2 00
No. 35	2 00
No. 36	2 00
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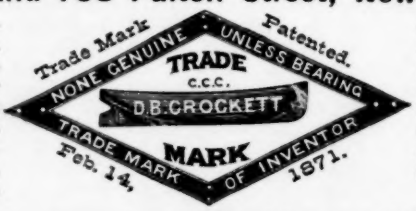

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No. 6	2 00	No 20	2 00	No. 34	2 00
No. 7 C. Yellow		No 21	2 00	No. 35	2 00
No. 8	2 00	No. 23 Marine Black	2 00	No. 36	2 00
No. 9 L. Green	2 25	No. 24	2 00	No 37	2 05
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